

# MANUFACTURERS' RECORD

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## Manufacturers' Record

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BALTIMORE, APRIL 25, 1907.

### AN EXAMPLE.

As indicating the industrial activity which is now developing in Oklahoma and Indian Territory, the MANUFACTURERS' RECORD learns that the town of Tulsa has just completed raising a fund of \$250,000 for the encouragement of manufacturing enterprises. A fund such as that rather puts to blush many cities many years older than Tulsa.

### JAMESTOWN.

The formal opening this week of the Jamestown Exposition, near Norfolk, Va., directs the attention of the country to the three hundredth anniversary of the first permanent settlement in America of the English-speaking race. Though not as extensive in some respects as earlier expositions, and though not as comprehensive as they in some of its material aspects, the undertaking on the shores of Hampton Roads will appeal directly and indirectly through many and various lines to millions of American citizens, and is bound to be a success, if only as giving emphasis to the tremendous strides this country has made in all directions in contrast with the countries that gave it its original white population.

### FOR A BROAD VISION.

Referring to a recent editorial suggesting how greatly the circulation of the MANUFACTURERS' RECORD would be increased if all of its readers were subscribers, and those who now borrow from their friends ceased to be bor-

rowers but became subscribers, Mr. Chas. Ellis, the general manager of the Andalusia Ice & Bottling Co. of Andalusia, Ala., writes:

I have just read carefully every word of your excellent article in the April 11 number, "Borrowing One's Reading," and I do hope that every man who ever borrowed a copy of the MANUFACTURERS' RECORD will see and read the article. During the 15 months that I have been a subscriber to your paper I have "loaned" about 40 copies, and in nearly every instance the one thing for which the borrower was looking was of sufficient value to pay for more than a year's subscription. You deserve the subscription of every business man of the South.

Somewhat along the same line as indicative of the appreciation of the work of the MANUFACTURERS' RECORD is a letter from W. G. Storey, assistant cashier of the Merchants and Farmers' Bank of Courtland, Va., in which Mr. Storey says:

I would be glad indeed could I induce more of our enterprising citizens to subscribe to your valuable journal. I believe it would result in much good to our community. I look forward with much pleasure to the receipt of each copy.

A great many other people throughout the South have expressed the same thought as to widening the circulation of the MANUFACTURERS' RECORD; that the more generally it is read in any community the more the business life and thought of that section is quickened. If we would be stirred to do greater things we must know what other people are doing. The men who with broad horizon look out on the world's activities and see what other cities, other States and other countries are doing are much more apt to do great things for themselves and their section than those who, living in a narrow circle, see nothing beyond the confines of their own community, and therefore lack the quickening stimulation to brain and body that comes from taking a broader view of human affairs. It is the aim of the MANUFACTURERS' RECORD to so present the panorama of Southern life as to quicken the thoughts and energies of the people everywhere, and we believe, like Mr. Storey, that the wider its circulation the greater will be the advancement of the South.

Advertisements of Southern localities offering special advantages for the location of manufacturing enterprises will be found on pages 74, 75 and 76.

Messrs. Atwood Violett & Co. of New York city write to the MANUFACTURERS' RECORD as follows:

The enterprise of the MANUFACTURERS' RECORD seems to be without limit. Our senior was a contributor to the MANUFACTURERS' RECORD about the time it came into existence—perhaps 25 years ago; at least, this is our impression—and he has been a subscriber to it for very many years. A more interesting and valuable paper than yours we have yet to come across. The South owes you a debt of large proportions for the great ability and industry you have shown in presenting its resources to the world generally, and we must feel you are reaping your reward in a very substantial manner, not only in that section, but in all directions.

### THE SOUTH'S OPPORTUNITY IN STEELMAKING.

It would be difficult to present a more striking argument in behalf of the strategic position of the South's iron and steel interests in the future than the official figures of the American Iron and Steel Association for 1906, showing the relative growth of Bessemer and open-hearth steel production. It was but a few years ago when the basic-steel industry was regarded with some disfavor, and when its future seemed uncertain. Just after the first experimentally successful tests of basic-steel rails had been made in Birmingham the late Abram S. Hewitt, the seer and prophet of the world's iron industry, in a statement made to the MANUFACTURERS' RECORD said:

The two great centers for dominating the iron and steel of the world are to be the Lake Superior region, with its Bessemer ores, on one side, and Alabama, with its basic ores, on the other. The growth of the basic-steel industry, now that it has been fairly started in the South, ought to be very rapid. That section, with its abundant stores of ore and coal and limestone in such close proximity as is found in Alabama, bids fair within the next quarter of a century to dominate the basic-steel industry of the world.

Mr. Hewitt, with that peculiar ability to forecast the future, indicated when in 1857 in his address before the Ironmasters of England he so clearly outlined the production of iron and steel up to the present time, was equal to foreseeing something of how rapidly the change would come about in the development of the basic industry. Recognizing the South's pre-eminent position for basic steelmaking, and believing that the world would soon recognize the importance of basic steel as compared with Bessemer, he talked so very enthusiastically one day about the future of the South that he was asked by the writer if he would put in a letter the statement just quoted, and it is from his written prediction that the foregoing statement is taken.

The annual report of the American Iron and Steel Association, to which we have just referred, gives the production of Bessemer and open-hearth steel ingots and castings in gross tons as follows:

Production of Bessemer and Open-Hearth Steel Ingots and Castings in the United States.			
	Bessemer.	Open hearth.	Per cent.
1890.....	3,688,871	513,232	12.2
1895.....	4,969,128	1,137,182	19
1900.....	6,684,770	3,398,135	33.7
1901.....	8,715,302	4,656,509	34.8
1902.....	9,138,365	5,687,729	38.3
1903.....	8,592,829	5,829,911	40.4
1904.....	7,859,140	5,908,166	43
1905.....	10,941,375	8,971,376	45
1906.....	12,275,253	10,970,998	47.2

As shown by these figures, in 1890 the open-hearth was only 12.2 per cent. of the total. Steadily year by year, without a single fluctuation, it has risen, until last year the open-hearth was 47.2 per cent. It is not only in the United States, but throughout the world, that the basic industry is making such a marvelous stride. The London Coal and Iron Trades Review in its last issue, commenting on the change that is going on in Europe, said:

The growth and the potentialities of the open-hearth rail output have one very important bearing on the rail trade. It places the rail pool in a far from impregnable position. There is no longer any limit to the number of outside competitors.

So long as the Bessemer railmakers in the United States practically controlled this industry and the Bessemer ores on which it was founded there was comparatively little opportunity for the broad development of the steel industry of the South, except it be through basic steelmaking. Now that the world has come to recognize the superiority of the basic rail over the Bessemer rail, and that the success of the basic-rail mill in Birmingham has been followed by the building of a great basic-rail plant at Bethlehem, and is being followed by the United States Steel Corporation in the building of its steel plant at Gary, Ind., all question as to the future development of the South's steel industry has been settled. It is now only a matter of money and energy to bring about a vast development of the basic-steel industry in the South. What is being done by the Tennessee and the Republic companies at Birmingham, where they are expending, according to the statements made to the MANUFACTURERS' RECORD by Mr. Gates, about \$30,000,000 as rapidly as the work can be judiciously done, should be followed by other iron companies in the South and by the organization of entirely new iron and steel companies to operate in this section. The time has come when the South should make an advance move. While the building of new furnace and steel plants requires vast capital, and while great care is needed to make sure of an ample supply of ores, in this day of almost limitless wealth and with the certainty that here and there ore supplies sufficient to justify the establishment of large enterprises can be found, there should be much broader and more active work for the development of steelmaking than we have yet seen. There are two or three companies in the Birmingham district, in addition to the Tennessee and the Republic, with ample resources of ore to justify their building steel mills. For several years the Sloss-Sheffield Steel & Iron Co. has been discussing the subject. Has not the time come when it should go forward and do something in this line? And then the Woodward Company, backed with its great wealth of material and wealth of capital, might also give full consideration to this important matter. But the South should not depend entirely upon existing companies. There is room enough and opportunity enough for the organization of a number of new and great iron and steel companies.

### DELAYED BY ANTI-RAILROAD SENTIMENT.

The proposed extension of the Kansas City Southern Railroad from Leesville, La., to New Orleans, which was reported last week in the MANUFACTURERS' RECORD, is not likely to be undertaken until public sentiment, or, to be more specific, legislative sentiment at various State

capitals, as well as at Washington, is less unfavorable to railroad interests, and consequently to the status of railroad securities in the financial markets. Concerning the Kansas City Southern's projected extension Mr. L. F. Loree, chairman of the board, writes the MANUFACTURERS' RECORD thus: "In the present state of the money market, nothing doing."

Not only is this proposed construction delayed by the prevailing conditions in financial markets (a piece of work which would have required the building of 250 miles of railroad through the rice belt of Louisiana), but several other important bits of construction have been either halted or hampered by the hostility recently manifested toward railroads. In the case of the Kansas City Southern, the people of the rice belt in Louisiana will have to wait indefinitely for the building of a line which would be a tremendous factor in the development of the section through which it has been surveyed, and on which much grading has been done and a considerable part of the right of way obtained. This important project waits upon an improvement to be indicated by the financial barometer.

Dispatches from other parts of the country show what the railroads are suffering in consequence of the attacks that have been made upon them and of the resultant conditions in the money market. A report from Scottsboro, Ala., said that the Southern Railway had been obliged to suspend some large contracts in the northern part of that State and in the southern part of Tennessee on account of being unable to negotiate a sale of improvement bonds. Another dispatch from Guthrie, O. T., said that work was discontinued on the Woodward-Selling extension of the Santa Fe system because of the anti-railroad attitude of the Oklahoma Constitutional Convention, and a telegram from the chief engineer is quoted as saying that: "We believe Western Oklahoma needs additional railroad facilities for proper development of country, and we were prepared to provide means. Under present conditions, however, the people as a whole evidently do not want us."

In one State at least it is pleasing to note some indication of change from an attitude of antagonism toward the railroads, and that is in Texas. The Legislature of that State recently passed over the veto of the Governor a bill authorizing the consolidation of several Santa Fe lines, notwithstanding that the Executive and other radical anti-railroad men strenuously objected. Not long ago it would have been easy in Texas at least, to have carried almost anything that would have been objected to by railroad men. The result of this act is that the Santa Fe will be left free to make an extension of about 150 miles, the construction of which would doubtless be under way but for the recent agitation among legislators against the railroad interests.

The seriousness of a situation in which the public and the railroad interests are arrayed against each other cannot be too strongly emphasized. Any obstacle to railroad extension and development at the present time is an obstacle to the extension and development of industry and commerce.

#### TO PUSH PRODUCTS.

The Riverside (Cal.) Chamber of Commerce, with an eye to business, is seriously suggesting that the entire country adopt an "Orange Day," on which every man, woman and child shall in the interest of the fruit indus-

try eat one extra orange. Now why should not the South suggest a "Cotton Day," on which every inhabitant of the country should in the interest of cotton put on a clean shirt in addition to the number of changes usually made. Think of 80,000,000 shirts more than the present needs of the country. Was it Hobson who once figured that if the shirts of the world should be lengthened just one inch a few million extra bales of cotton would be required. Here's to an "Orange Day" for California and a "Cotton Day" for the South.

#### NEW ENGLAND REDIVIVUS.

If anyone should seek to pick any portion of the country suffering the least from lack of energy and enterprise and not enjoying to the full the material results of the possession of such desirable qualities he would probably think last of New England. For, the history of the people who made that section is a record of almost unsurpassed human courage and pluck in the face of comparatively few advantages in nature. Yet there are evidences that New England is not satisfied with itself. For instance, the *Portland Press* finds that "unless something unforeseen occurs to check enterprise, Maine is evidently on the eve of an era of great growth and development," due to plans for railroad building in that State, which constitutes nearly a half of the area of New England. The *Press* sees in the proposed railroad building much new work for contractors and manufacturers, the bringing of new business into the State in the furnishing of labor and supplies, the development of great tracts of virgin country with the opening of timber lands in northern counties, the utilization of thousands of horse-power in the streams now running to waste, and the building up of more manufacturing centers.

That sounds like suggestions which would be normal if applied to many parts of the South, but impressing oddly perhaps the mind of the average man accustomed to think of New England as settled to its full capacity and as utilizing every known resource. But the spirit thus manifested in Maine, which, by the way, has a population averaging but 24 persons to the square mile, less than the average for the whole country, is equally pronounced in Massachusetts, with 350-odd persons to the square mile, the most densely-settled State in the Union, with one exception, if we are to judge from a special message recently sent to the General Court by Governor Guild urging the appointment of an unpaid commission on commerce and industry, representing law, transportation, manufactures, capital and labor. Governor Guild does not overlook the fact that manufacturing in Massachusetts is not only prosperous, but infinitely more prosperous than in the immediate past, as he puts it; he says that Massachusetts is the richest State per capita in the Union except New York; that immigrants appreciate Massachusetts as a field for enterprise, and that commerce in long hauls as well as in local transportation of freight and passengers is so enlarging that terminals are inadequate for the swift increase of traffic. But he finds that some Massachusetts capital that should go to increasing plants for cotton and carpet manufacture has gone not only into the construction of such plants in the South, but even in other New England States, and that Boston's export trade is not developing as rapidly as it should. He says:

Let us have Massachusetts capital for Massachusetts. Let us see, moreover, if

there are not means by which there may be an immigration rather than an emigration of capital that shall co-operate with the existing immigration of labor for the further extension of the industrial leadership of this Commonwealth.

As means to those ends he urges that money might be spent in developing river banks and waste land on tide-water as sites for factories, and the encouragement by the development of water-powers or otherwise of smaller industries. His argument is that if manufactures are to be exported by Boston ships, the ships must be attracted by a guarantee of bulk freight for ballast. The principle of developing foreign commerce by building industries at tide-water is becoming more and more generally recognized as an eminently practical one, and Massachusetts has been somewhat of an illustrious pioneer in applying it.

The point, though, emphasized at this time, is that New England, with all its notable achievements, is not satisfied with itself—a healthy sign and a sure promise of greater achievements in the future. What may not the South do, filled with the same spirit and enjoying so much greater advantages?

#### CHARACTER RATHER THAN CASH IN EDUCATION.

Referring to the obtrusion now and then upon the rational activities of the South of hysterical journals, some of them of influence, public men, few in number, happily, with now and then a minister, the *Danville (Va.) Register* says:

The MANUFACTURERS' RECORD, which hits these injurious faddists of all types hard blows continually, says that people who "play with edged tools should be given as little attention as possible." Yet it can't help, as we can't help, from warning the unthinking reader against the insidious misanthrope. The educational crank, who wants to beg or borrow from people that are trying to monopolize our school system; the political crank, who can't see any fault in the blind object of his miserable idolatry; the social and philanthropic crank, who is willing to sacrifice the true interests of his own community for the sake of a dreamy, sickly, cosmopolitan sentimentality, which, after all, is more sectional than the local sentiment at home which he denounces—all these hysterical persons are doing the South an enormous amount of injury in the aggregate. The sane Southern man or woman wants to go on steadily in the old path, at a somewhat different pace, with a broader, clearer vision, and a circumspection that avoids sensations while it encourages progress.

That is the soundest sort of doctrine, and one to be preached persistently as long as the South continues to be subjected to the menaces in divers forms here epitomized against its American integrity and stability. One of the menaces, and one the more pernicious, possibly, because the cover for others, is characterized by the *Register* as follows:

Men can't help from differing on public questions, whether educational or political; hence the *Register* is prepared to see some of its best contemporaries urging the propriety of the acceptance of Northern funds that are confessedly given to Southern colleges with the purpose or expectation of securing for the controllers of the fund an influence in shaping the educational systems of the Southern States to suit the views of the donors and their agents and the dispensers of the charity. Those newspapers which we see and which oppose the Ogdén movement and benefactions from Carnegie and Rockefeller base their objections on the grounds that the reception of money from the outside is the same thing as the acceptance of any money gifts from strangers—a badge of mendicancy; that the South will not be benefited under such circumstances, but, on the contrary, will lose its self-respect, and further, that the education of our youth must not be at the hands of people who desire to have our young men and young women taught that the deeds and opinions of their fathers were either injuri-

ous or worse. Not a man who was of age to think for himself in the fateful days of the great sectional struggle, not a man who has since seen the results of the conquest of the South, but knows the importance of resisting the great tide of false sentiment, erroneous statements of historical events and mercenary views of human life that have come into vogue since 1860. We have not a word of censure for the benevolent gentlemen who tender the money, but we do not think any more of it should be accepted, and our opinion is that the South should be better off today if not a cent of this money had ever been received. Education is a great thing, but character is greater. A young man who achieves his education at an institution which is self-supporting or maintained by bequests from friends at home interested deeply in its welfare is more likely to receive right impressions that will stand him in stead through life as a man of probity of views as well as of decency of life than one who has attended a benefited institution with a larger endowment and expansive ideas of rights and wrongs.

The correctness of that view of what will pass into history as the Ogdén Movement can hardly be doubted by anyone who has carefully and disinterestedly followed the developments of the past seven or eight years. No one, of course, can define accurately the motives of the donors of the great funds now aggregating into an Educational Trust; he cannot even sound to its full extent the intent of the real promoters of the trust or the agents of it, including a few Southerners more or less on its salary list. But whatever the motives, whatever the intent, the Ogdén Movement has shown itself in the past few years such an agent of demoralization that its end is as clearly revealed as if its promoters had acknowledged that it was their intent.

In teaching colleges to become beggars, in training students in the colleges to become mendicants and in putting to the front, in administration of its funds or in promotion of their popularity, individuals on record as alien to the principles which have dominated the best energies of this country, the Educational Trust is menacing not merely the South, where, for reasons best known to itself, but pretty thoroughly understood by its opponents, it chose to lay the foundations for the "system" that it would create, but also all other parts of the country that may be beguiled or wheedled by its millions.

Who furnishes the money or from what section of the country it comes is of minor moment. The methods that have been pursued in promotion of the Ogdén Movement are the methods that should, in the eyes of intelligence and self-respect, unqualifiedly condemn any movement undertaking to dominate American educational energies and institutions.

#### HOSTILITY TO MATERIAL PROGRESS.

Referring to the statistics given last week by the MANUFACTURERS' RECORD of the issues of municipal securities in the South, the *Birmingham Age-Herald* says:

Our farmers and business men need money, and our municipalities also need it. The South is in a developing condition, two-thirds of its soil being uncultivated and fully two-thirds of its resources untouched. A section in that condition needs large sums of money, and Alabama is no exception to the rule. To drive away to other States by adverse legislation the great insurance companies and other loan companies is to cripple development and to retard progress. . . .

The sale of city, county or State bonds shows public needs, and private needs were probably even greater. Alabama no doubt could profitably absorb \$2,000,000 a month of foreign money, and our people could get the money they need in the development of the State if hostile State legislation did not intervene to prevent. The law increasing the taxes on foreign corporations should be repealed. We should not, in other words, show



a hostile spirit to institutions that stand ready to supply our people with money to be used for the purposes of progress and development. With the law in question rescinded foreign capital will seek Alabama in larger volume each year.

This is all true. It is so plain that one wonders that there should be any need of arguing in its favor. The South has almost limitless resources, but it needs railroads, it needs great development enterprises, it needs more furnaces and steel works, more cotton mills, more water-power improvements, more factories of all kinds. Its own capital is not equal to the magnitude of its opportunities. Moreover, any laws which restrict the coming of outside capital will tend to restrict the investment of local capital. Home capital is as timid when in sight of bad laws as is foreign capital. The South should bid a hearty welcome and guarantee the most thorough protection to capital, whether it be the capital of money, of brains or of brawn.

#### QUICKENED ITALY

The Maryland Railway Supply Co. of Baltimore sends us a copy of a letter which it has received from A. Giesselmann & Co. of Torino, Italy, in which they write:

We notice in March 21st MANUFACTURERS' RECORD your spike strut for trackwork, which interests us very much.

Is it patented in Italy? If so, please send us a couple of them as sample and tell us whether you are ready to sell the right to make them here in Italy for the use of our railways, or please give us some other ideas about the same.

We are very well acquainted with railroad authorities, with whom we are dealing with brakes, shoes and dustless machineries. Therefore we hope in a success if this matter will be presented by us.

Please give to this offer your best attention and you will greatly oblige.

The alertness of this Italian firm to investigate American mechanical improvements is but an illustration of the quickened spirit of nearly all of Italy in material upbuilding. In some lines of industry Italy is really setting a pace which would be rather difficult for other countries to duplicate. The development of water-powers for electrical purposes in the mountain regions of Italy especially is commanding wide attention, and the result is a very great advancement in the industrial life and activity of these regions.

#### JENNINGS, LA.

Referring to what he believes was an inadequate mention of Jennings, La., in a recent review by the MANUFACTURERS' RECORD of the trip through Louisiana by members of the rivers and harbors committee of the National House of Representatives, a correspondent writes:

"The elaborately-planned reception was at Jennings, and the official map of the Coastal Canal Co. shows Jennings on the Mergentau emptying into Grand lake, giving deeper water than the main canal, which carries a Government appropriation of \$280,000. Jennings 20 years ago was only a small speck on the Southern Pacific Railroad map, and was the birthplace of the idea that Northern men would be better off if they come South. It was also the birthplace of modern machine rice-growing, and the discovery of Louisiana petroleum (crude oil) was made by Jennings men. Rice had been grown here 130 years, harvested with a hook and threshed with a club with a result of less than \$500,000 yearly. But now, after 20 years, with modern machinery, it is \$20,000,000 annually. Jennings has the best single oil field in the States, and is surrounded by small farms run by a class of men of sufficient intelligence to know that small farms

are best for the farmer, for town, parish, State and the world."

#### NORFOLK.

[Norfolk Virginian-Pilot.]

In the current issue of the MANUFACTURERS' RECORD of Baltimore special correspondents of that foremost publication of its kind in the country tell the story of the wonderful advancement and development which have come to Norfolk and the surrounding section in the last few years, and they tell it well and accurately. The articles, which cover several pages of the MANUFACTURERS' RECORD, deal with every phase of the city's commercial and industrial progress and development, facts and figures being cited to substantiate every statement, and are replete with illustrations remarkable for the discrimination with which they are selected as well as for their clearness and accuracy of effect. The whole picture, wording and illustrations, is truly descriptive of the actual conditions here, being neither overdrawn nor underdrawn in any particular. The write-up is the most careful, complete and accurate ever given this city and section by an outside publication, and should be of incalculable benefit to the entire Hampton Roads section in advertising abroad its unexcelled advantages and resources.

#### MEN AND MONEY WANTED.

Messrs. Joseph Espalla, Jr., & Co. of Mobile, in a letter to the MANUFACTURERS' RECORD say:

"We are thinking of building a car manufactory and furniture factory in Mobile, Ala., and we write to ascertain if you know of a good practical man in this line that would like to become interested in such a factory in Mobile, Ala. The people of Mobile could raise two-thirds of the money if the practical man could raise the other third. If you know of any such persons, please put us in communication with them."

A letter along a somewhat similar line is that from the Bank of Maxeys, Maxeys, Ga., in which it is said:

"Could you give us names of manufacturers or capitalists who would be interested in building a cotton mill down in this section? A young man here who has earned and saved some money wishes to enlist outside help in such an enterprise. Trusting that you may be able to give information sought, we are."

These letters are indicative of the stirring spirit which is awakening the towns and cities to the possibilities of the increased industrial interests and awakening outside people to the opportunities for the establishment of banks and other enterprises in the South.

#### THINKING OF GOING SOUTH.

Mr. S. J. Becker of Pitcairn, Pa., in writing to the MANUFACTURERS' RECORD for a copy of the pamphlet "America's Amazing Advance," says:

"I am thinking of going South soon, and would like to know something of its possibilities and what part would be the most profitable with reference to location."

Once in a while it takes a long time to get an answer to letters of inquiry, but it doesn't often happen that people who cannot at the moment give the desired information remember months afterwards to answer letters when they are able to comply with request for information. In November, 1905, the MANUFACTURERS' RECORD sent to the pastor of the Methodist Church, South, Tulsa, I. T., a letter of inquiry about a projected church reported to be erected there. We are just now in receipt of a reply from Rev. J. H. Ball, pastor, giving the desired information and using the inquiry blank sent him nearly 18 months ago.

## THE TRANSPORTATION CRISIS—V.

By LEWIS M. HAUPT.

[Written for the Manufacturers' Record.]

During the early days of the republic population was confined to the territory bordering upon the waterways of the Eastern seaboard, but the opening of the Erie and other canals and the building of railroads rapidly shifted its center to the Ohio and Mississippi valleys and created new lines of transit to the nearest seaboard. This movement is still in progress and the increasing productivity of the country causes a longer haul and a greater tonnage to be carried to the sea, thus creating new conditions which have surpassed the capacity of the overland carriers. Instead of a mere local question, transportation is now a national one, and involves a consideration of the dimensions and physical features of the entire country for its systematic relief.

During the past century the center of population has moved along the 39th degree of latitude from the vicinity of Baltimore, Md., to near Columbus, Ind., a distance of more than 500 miles, and having thus passed far beyond the Alleghenies, the line of least resistance for exports would be along the down-grade rivers to the Gulf of Mexico.

To counteract this tendency the Eastern interests have spared no expense to reduce the cost of transportation to the Atlantic seaboard by improvements of alignment, grade and distance, and the State of New York has several times enlarged the Erie Canal, while the Canadian waterways have been deepened far beyond those of this country, and they are of great importance in holding the traffic of the Lakes and the St. Lawrence for that Dominion.

These factors have long militated against the improvement of the Southern outlets for the products of the Great Basin, but the time has arrived when they can no longer be ignored, and the opening of the ports on the Gulf is even now of great service to the railroads in relieving the congestion by the shorter haul and greater dispatch.

#### The Great Basin.

Although the Government secured control of the outlet of the Mississippi valley in 1803, it was not until 1879 that a navigable channel deep enough for modern vessels was opened through the South Pass by Capt. Jas. B. Eads, and although very large sums have been expended upon the river with a view to increasing its navigability, it has been shown already that it is not navigable at low stages, and that the system in vogue has been encouraged by hostile interests to retain the traffic on the eastbound routes. It is now seriously proposed to construct an artificial waterway from St. Louis to the Gulf, which shall have a navigable depth of 15 feet to supplement the great river from which the traffic has been diverted by the railways.

The rivers of this valley cover some 16,000 miles in length, and have created the most productive territory in the United States, yet they are only navigable in times of flood and high water, and these stages are becoming more uncertain every year because of the deforestation of their tributaries and the confining of the sediment to the bed of the stream. Fortunately, the Government has inaugurated the policy of irrigation, and the States are giving more attention to reforestation as a productive industry so that there will be some measure of relief from the destructive natural forces which have been allowed to injure the highways of commerce, but there is not yet made any provision for a return to the valley of the fertilizing soils which are confined to the pathway of commerce, where they are not needed. At the mouth of the river, where several crevasses have not been closed, the sediment which has escaped from the stream has contributed over 160 square miles of rich arable land to the State and nation which it would have cost over \$150,000,000 to have placed there by dredging. Each year about 18 per cent. of this alluvion escapes through these crevasses and thus prevents the more rapid extension of the bars into the Gulf and the reduction of the slope of the stream and menace from floods.

#### Economic Value of the Waterways.

The absence of a constant channel in the valleys of the Mississippi and its tributaries costs the country untold millions, but some idea of the losses to the farmer and the effect on the value of property remote from the seaboard may be seen from the statistics of the value of the cereal crops on the farm as furnished by the Agricultural Department for a period of 10 years. These values may be shown better by a chart (vide), upon which is placed the average price for wheat (for example) in each State, and by drawing the curves of equal values, beginning with the lowest and increasing by five cents each, it will be seen that the area of least value is that most remote from the seaboard, and that the cost of transportation must be deducted from the price at the farm that the product may reach the port at the export rate. So that the nearest port is the natural outlet, and it is inevitable that with equal facilities and local charges the Gulf ports must capture the bulk of the business of the great West. What this means to a single State may be shown by a brief comparison.

In 1901 the State of Kansas produced 99,079,304 bushels of wheat, while Nebraska raised 42,006,885 bushels. The yield in Kansas being 1.4 bushels per acre greater than in Nebraska, the price, under the law of supply and demand, should have been lower, but it was five cents higher. Comparing the rail hauls from Kansas City and Omaha, the principal shipping ports of these States, it is found that the former is 34 miles nearer Chicago and 129 miles nearer St. Louis, and by water it is 230 miles nearer the river route to New Orleans, so that this gain in five cents per bushel for that year, on a yield of 18.5 bushels per acre, represents a net revenue of 92.5 cents per acre over Nebraska. Had the entire State been sown in wheat it would have produced an additional revenue of nearly \$50,000,000. The actual return on this crop above that for Nebraska was nearly \$5,000,000. Kansas received nine cents more per bushel on her corn and six cents more on oats, making a total net gain of nearly \$12,000,000, while on her crops Nebraska lost over \$14,000,000 because of her geographical position with reference to waterways. The area of lowest prices covers the upper Missouri and the Platte rivers in the semi-arid zone, and the curves show the increase in value as the coast is approached, so that the consumers near the seaboard must pay more for the privilege of their proximity to the foreign markets. It is just as important, therefore, for the interior sections to secure navigable channels as it is for those bordering the coast, yet it has been the custom of members from the States having few waterways to decry the appropriation for their improvement because little or none of these funds may be expended within their districts.

It is of the utmost importance that the improvement of the waterways should be pushed as rapidly as possible into the heart of the country, to carry out its agricultural

and mining products to the people of the world. Today millions of miserable souls are starving in China, Russia and India, while the abundant harvests of our Northwest are unable to be handled and are going to waste.

After more than a century of control with an ever-varying personnel in charge, would it not seem to be a wiser policy to create a permanent board to apply the resources of the Government to the improvement of the low-water channels of the rivers of the West than to the reclamation of the lands from floods? This will follow as a sequence from the improvement of the stream and the levees will not have to be raised continuously to keep pace with the rising torrents.

#### The Great Belt Waterway.

For an efficient and cheap system of transportation it is necessary that a capacious channel should be constructed to connect the waters of the Great Basin with those of the Lakes, and for many years the early settlers gave their attention to this problem, so that numerous canals were built between the Lakes and the Ohio and Mississippi, as well as from Lake Erie to the Atlantic. The limited resources and sparse population restricted them to about four feet depth, yet they were fostered by the States and served a useful purpose, but they were soon supplanted in most cases by the rapid encroachments of the railroads, which in a few years exterminated over 700 miles of canals in Pennsylvania and 600 in Ohio. These connecting canals were so important that a brief description is submitted.\*

The one connecting Lake Michigan with the Illinois river was 96½ miles long, 60 feet wide and 6 feet deep. There were 17 locks, each 110 feet long by 18 feet wide, and the total lockage was 158 feet. From La Salle, where the canal joins the river, it is 213 miles to the Mississippi, thus making the total distance from Chicago 309.5 miles. The Illinois was navigable for flatboats all the year save for ice, and for steamboats about four months. The summit level of the original canal has been removed and the waterway enlarged to 22 feet in depth by 160 feet in width in rock, and 202 feet in earth. This work has been built by a tax on the drainage district of Chicago at a cost of about \$40,000,000, authorized by the State.

The *Wabash and Erie Canal* connects the lake at Toledo with the Wabash river at the town of Terre Haute, 275 miles from the lake and 290 miles from the mouth of the Wabash river, which is 130 miles above the mouth of the Ohio, making the total distance from the lake to the Ohio by this route 565 miles. There is a branch canal leaving the main line at Junction, about 75 miles west of Toledo and connecting with the *Miami Canal* from Cincinnati, extending up the Miami river. This canal is 160 miles long, 40 feet wide at the surface and 4 feet deep. It has 85 locks, 90x15 feet, the same as for the Wabash, and the total length from the Ohio to the lake is 225 miles.

Another, the *Ohio and Erie Canal* (built 1825-32), started from Portsmouth, at the mouth of the Scioto river, and followed up that stream to Columbus, below which it trended eastward to the Muskingum valley, and thence via the Sandy northward to Cleveland, a total distance of 300 miles. A branch leaves this canal at Bolivar, 80 miles south of Cleveland, and extends eastwardly to Liverpool, at the mouth of the Little Beaver, on the Ohio, a distance of 76 miles, making the total distance from Cleveland to Liverpool 156 miles. This is known as the *Sandy and Beaver Canal*.

Still another, known as the *Beaver and Erie*, left the Ohio at the mouth of the Beaver river and passed up the Shenango in a northerly direction, crossing the lake divide to the headwaters of the Conneaut, thence down to the city of Erie, a distance of 136 miles from the Ohio, being the shortest of all these routes, but the total lockage was 929.5 feet, and the trunk was 40x4 feet, with locks 90x15. This canal was joined to the Ohio and Erie by a cross-country route of 83 miles in length, connecting Akron with New Castle.

The *Welland Canal*, connecting Lakes Erie and Superior, furnishes the outlet for the previous waterways between the Great Basin and the St. Lawrence through foreign territory. It is 27 miles long, and has 25 locks, with a total lockage of 327 feet. It was constructed in 1833, and enlarged in 1871 and again in 1900 at a total cost of about \$25,000,000. It is 14 feet deep and 100 feet wide.

The eastern outlet within the United States is effected by means of the Erie Canal through the State of New York, a distance of 504 miles. The total lockage is 624.89 feet. It was originally only 40 feet wide and 4 feet deep and had 84 locks, 90x15 feet.

Other eastern outlets were from the Erie Canal at Utica via the Chenango to the Susquehanna and thence to the Pennsylvania canals. Another route was from Rochester via the Genesee valley to Olean, at the head of boat navigation on the Allegheny, which was 120 miles long, with 114 locks, and another by way of the Seneca and Chemung canals to the Williamsport & Elmira Railroad and Susquehanna Canal to tide-water, and finally by the Pennsylvania canals and railroads from Pittsburg to Philadelphia, 394 miles.

These canals across the lake and Ohio divide were amongst the greatest works of the early thirties of the last century, and resulted in converting Ohio from a State of barbarism to one of civilization and increased the price of lands from 300 to 400 per cent. They also made the improvement of the Ohio a necessity, for in 1837 it was only about 12 inches deep on the bars at low water, and it was proposed to increase it to two and one-half feet by wing dams and dredging.

The first appropriations for the Ohio were made by Pennsylvania in 1817, when \$2000 were expended in "viewing the river," followed by \$15,000 for its improvement as far down as Wheeling. Congress began appropriations in 1826, which amounted to \$453,500 by 1839, when they ceased for six years and the public property was sold off to pay the debts and the United States engineer, Capt. John Sanders, transferred to other duties. The Pennsylvania Railroad, which was opened through to Pittsburg on December 10, 1852, then took up the issue and secured a charter, organized a company and made a tender to open the river for the benefit of its railroad to the seaboard, but it did not receive the sanction of the Government. Other efforts were made by Chas. Ellet, W. Milnor Roberts, Herman Haupt, chief engineer Pennsylvania Railroad Co., and others, but they met with a similar fate, and it was not until 1878 that the Government began the construction of a system of movable dams, on the Chanoine-Pasqueau plans, that an effort was made to create a six-foot stage by the erection of the dam at Davis' Island, a few miles below Pittsburg, to create a pool for the assembly of coal fleets awaiting floods to carry them down the river. This dam was completed in seven years at a cost of nearly \$1,000,000, and served to float an assemblage of coal barges from the Monongahela fields, containing 1,200,000 tons of coal, valued at

\$6,000,000, including the floating plant, for a period of six months, until a storm released it just prior to the close of the season by ice. The present condition of this most important highway of commerce is succinctly stated by Hon. Jos. E. Ransdell, M. C. of Louisiana, who is also the president of the National Rivers and Harbors Congress, as follows:

"In 1875-76, some 31 years ago, a project providing for a six-foot slackwater navigation on the Ohio was adopted and work begun thereon. It has proceeded with a snail's pace. Out of 52 locks and dams provided for in this project, only six have been completed, and four others are in process of construction. The project has been changed to a nine-foot depth instead of six, and the estimated cost of completion is \$63,000,000. If this gigantic and most meritorious work is continued at the same rate as for the past 30 years, it will not be closed by the end of the century. \* \* \* At the present rate we may hope to see the Ohio canalized in about 50 years."

Certainly this is a gloomy outlook for this trunk-line waterway, and even if it be opened to the Mississippi at that date for the 1000 miles of its course, there remains another 1000 down that stream to the Gulf to complete the circuit to the sea. It is difficult to determine the number of officials in charge of these improvements under the various administrations, but there have been no less than twoscore, aside from numerous boards, and the total amount appropriated for the river above Louisville from 1826 to 1900 has been only \$16,919,542. At this rate the annual appropriations were about \$230,000 for the 74 years, or three centuries to expend the \$63,000,000 proposed. Even at the rate of \$1,000,000 per annum it will take more than 50 years to complete the nine-foot stage, at least, and by that date the population of the country will have far more than doubled.

In the meantime the congestion in and around Pittsburg will have made it necessary to relieve itself by opening the shortest, largest and cheapest possible outlet across the lake barrier by the canal from Beaver to Ashtabula, a distance of 105 miles, with a depth of not less than 14 feet, in keeping with the gauge of the new Erie and Welland canals, thus bringing the entire Atlantic and Lake systems into communication with the extensive coal deposits and manufacturing developments of the upper Ohio and its tributaries. This work could be completed by private capital under the National Charter, which it required about 10 years to secure, in five or six years, if well organized. It is one of the most urgent works in the country, and will do much to relieve the congestion and cheapen the cost of fuel.

The loss due to the failure to maintain and modernize the waterways constructed in the past century is inestimable, and the progress of the nation in the effort to improve the interior routes is so unsatisfactory as to call for some radical reorganization of the methods pursued, if the demands of the country are soon to be met.

These conditions would seem to be fulfilled most expeditiously by subdividing the territory into drainage basins, having permanent officials located in each district and held responsible for the results, as is the practice in many foreign countries where the waterways are so fully developed.

#### SHEET GROUND ZINC.

##### Greater Development in the Joplin District Expected.

[Special Cor. Manufacturers' Record.]

Joplin, Mo., April 12.

A greater development of the "sheet ground" formation in the Missouri-Kansas mining region is expected during the year 1907 than at any previous time in its history. This is saying much for the future of the territory around Webb City, between it and Oronogo and between Webb City and Carthage, where the principal development in the sheet ground has so far been carried on, in view of the fact that during 1906 no less than 27 large concentrating plants, varying in daily capacity from 200 to 1000 tons, were in process of erection. Being erected not on "cut-out" mines, but on entirely new properties, it is safe to estimate that the output from this class of mines will be increased at least 100,000 tons for this year. It is a fact calculated to arouse more than passing interest that the greatest development of zinc mining is being made in the sheet ground, whereas but a few years ago the low percentage of ore existing in this formation failed to justify development work. Attention at that time was centered in the pocket formations in the vicinity of Joplin, Galena, Kansas, Granby, Aurora and Oronogo. Ores carrying a percentage of ore seldom exceeding 12 per cent. to as low as 1½ per cent. could not, previous to the more perfect milling practice of recent years, be handled at a profit. With the introduction of the modern mill and more intelligent help ores carrying as low as 2 per cent. can be handled at a profit.

Ore of this character was first mined between Webb City and Cartersville, in a narrow valley lying between the two cities. Here the ore was found finely disseminated through the rock strata and existed in the rock layers or in sheets. Hence the name, "sheet ground" formation. The term "blanket formation" is sometimes applied

to the same form of ore body; that is, the ore occurs in blankets varying in thickness from that of a knifeblade to 20 and 30 feet. It differs from the long runs of ore found in fissures by having greater breadth, and from the pocket formation by having, as a rule, less thickness and greater lateral extent, the pocket formation showing ore bodies very rich, but of uncertain extent and shape, oftentimes being very irregular. The sheet ground, while varying greatly as to lateral dimensions, often extends over large areas, many instances being at hand in which sheet ore has covered uninterruptedly an area of 40 acres of ground. Other instances showed an equally extensive general area covered by the formation, which, however, was penetrated by pillars of barren ground. The sheet formation is also characterized by the almost horizontal position of the overlying rock layers and the corresponding position of the ore-bearing strata themselves. The overlying layers usually consist of continuous and heavily-bedded limestone, with an occasional break of bouldery ground, usually barren, but sometimes containing very rich deposits of ore.

In the "sheet" itself the ore is either found imbedded between the broken fragments of very hard flint, brecciated, and either blue or white in color or finely disseminated throughout an otherwise solid stratum of flint. The latter formation is the less common, and owing to the extreme fineness to which the ore must be crushed in milling, is the much harder to save. Owing to the extreme hardness of the chert or flint associated with sheet ore, only the very best machine drills can make any headway in development work, and the ground is often termed "hard-ground diggings," as distinguished from the "soft-ground" formations in the vicinity of Chitwood and as exhibited in probably the most famous of the pocket mines, the Bumblebee, southeast of Joplin.

A multitude of theories has claimed the truth as to the origin of sheet ore, the most

\*See Ex. Doc. No. 19, Thirtieth Congress, first session, 1848; report by Col. A. J. Alert, topographical engineers.



probable, in the face of but little disturbance of the neighboring strata, being that water holding in solution the ores leached from the overlying coal measures and percolating downward deposited the mineral salts in the beds of chert in which the ore deposits exist today. These chert beds are accounted for on the theory that the chert or flint originally occurred in beds of limestone, which, being more soluble than the flint it contained, was eroded away, leaving the flint to drop down and become brecciated by the local disturbances and settle in beds, where, after long ages, it was cemented together by deposits of mineral salts from the percolating waters, a process which, in the absence of a more plausible theory, seems to account satisfactorily for the present sheet ground formation of ore, limited in thickness and lateral extent only by the thickness and lateral extent of the flint strata.

Up to the introduction of the more modern concentrating methods and milling practice it was impossible to handle at a profit ores carrying less than from 8 to 10 per cent. blende. Many mines which have since been developed into magnificent producers in the territory between Webb City and Cartersville were abandoned at one time because the percentage of zinc ore in the dump would not justify its concentration. Since that time magnificent mills have been constructed to handle ores running as low as 4 per cent. blende. Thus within recent years has come about a decided change of opinion in the valuation of ore bodies, the preference being now given to the low-grade ore and the comparative certainty of a long-lived mine rather than to the richer and more capricious pocket formation, which may one day give brilliant promise of an Eldorado and the next be cut "blind."

The handling of a sheet ground proposition, however, requires a large amount of capital, owing to the expensive machinery required and the erection of mills large enough to concentrate the ore to the best advantage. Indeed, the change in idea relative to a mill building has kept pace with that in the idea of the real value of the sheet ground. From the 75 and 100-ton mill once used mills of 500 and 600 tons capacity are the rule, rather than the exception, and a number of a daily capacity of 1000 tons are either in actual operation or in process of erection. The Missouri Zinc Fields Co. and the Center Creek Mining Co. were pioneers in the development of the sheet ore. They erected extensive plants and spared no expense of time or money to test their properties and develop them according to the most approved methods. As a result, \$13,000,000 worth of ore has been taken from their mines.

The plants of these companies, however, lie in the valley between Webb City and Cartersville, while the territory known as the "sheet ground" lies to the north of Webb City, in the direction of Oronogo and Carthage, with indications from very recent development work that it also extends under the city and to the south. Immediately north of the city lies the territory representative of the sheet ground development work as it exists at present. Upon the Carter land, the Guinn land, that of the Underwriters' Land Co. and the property of the Engineers' Zinc Co. are to be found the largest and finest zinc mills in the world. The Ground Floor, Florence, Black Cat, Providence, Chicago, Osceolas No. 1, No. 2 and No. 3, Incline, American Beauty, the Yellow Dog and Red Dog are all representative of the very highest order of modern mills. They handle from 150 to 1000 tons of ore per day, and many have been in operation for a number of years with the result in many cases, as with the Yellow Dog, ores from as much as 10 acres

of drifts have been handled, while recent investigation goes to show the great extent of the ore bodies in this region by indicating that the Yellow Dog Mill, as, in fact, most of the sheet ground mills, has enough ore blocked out to run it for 15 years.

As complete as are these mills in every detail, improvements in milling practice are constantly being made. The American Zinc, Lead & Smelting Co., which only recently has put in commission its fourth 600-ton mill, and the Underwriters' Land Co. have taken the lead in mill practice and mine improvement. The latter company, operating the Yellow Dog Mill, has equipped it with the most modern machinery obtainable. It is a double-wing mill, each of a capacity of 500 tons daily, and is the largest and best-equipped zinc concentrating plant in the world. It is equipped with electric machinery throughout, takes ore from two large inclined shafts and is equipped not only with the rougher jigs, but also with "cleaner" and "sand" jigs and sludge tables. Much attention is paid to sizing the ore, and the milling practice generally, while not differing materially in process, is carried more nearly to perfection than in the ordinary type of Joplin mill.

To the development in the sheet ground formation in the last few years is due almost entirely the \$2,000,000 increase in the production of the district for 1906, the certain doubling of the production of Center Creek valley for 1907 and the passing from Joplin to Webb City of the scepter of supremacy as the world's greatest producer of zinc ore.

#### Dixie Portland Cement Plant.

The MANUFACTURERS' RECORD is authoritatively advised that the construction of the Dixie Portland cement plant at South Pittsburg, Tenn., is proceeding steadily. About 400 men are at work, one-third of the work is done, most of the foundations are in, much of the structural iron erected and the machinery is arriving. The plant will be operated by the Dixie Portland Cement Co., and is expected to be ready for manufacturing during the coming fall. The company has been previously referred to at length by the MANUFACTURERS' RECORD. It has a capital stock of \$2,700,000, and will produce 2500 barrels of cement daily. Mr. George E. Nicholson of Iola, Kan., is president. He and his associates operate several Portland cement plants.

#### Another Portland Cement Plant.

A big plant for the manufacture of Portland cement will be established in the Southwest, and it is expected to supply large quantities of its product to the Government for construction work in connection with the building of the \$7,000,000 Engle dam. Plans are being prepared and the plant will soon be in course of construction. The enterprise is projected by the Southwestern Portland Cement Co., which has organized with a capital stock of \$1,100,000 and the following officers: C. Leonard of Los Angeles, Cal., president; Charles Boyetcher of Denver, Col., vice-president; A. Courchesne of El Paso, Texas, general manager; J. E. Williams of El Paso, treasurer, and O. J. Binford of Los Angeles, secretary. The plant will be located about four miles North of El Paso, where 900 acres of land have been secured, and its capacity will be 1400 barrels of cement per day.

The Automobile Transit Co. of Shreveport, La., capital \$25,000, has filed its charter to operate an auto line in Shreveport. The officers are F. W. Palis, president; M. Dowling, vice-president, and Noel Dowling, secretary-treasurer.

## Constructive Forces in Upbuilding Columbus.

[Special Correspondence Manufacturers' Record.]

Columbus, Ga., April 20.

Nowhere in the South is there a better illustration of the constructive forces at work for the upbuilding of this great section than that afforded by developments at Columbus. Old cities all over the South are taking on new life and vigor, almost without exception, and new ones are coming into existence all the time, so that it would be extravagant to say that Columbus is a marvel in this line. At the same time, had there occurred at Columbus 15 years ago the progress I note since my last visit to the place, in the spring of 1905, Columbus would have been heralded all over the land as a conspicuously active town, experiencing what would have been called a genuine boom.

The miles of bitulithic pavement that have been laid first strike the eye, and then the new buildings loom up, and the brightening and freshening and modernizing that have occurred on the older business structures fasten the attention of those who have known Columbus of old. A tour around the city shows new factories and schools and homes, and all over the place there is evidence of a new spirit of enterprise and determination to go ahead.

There have been men of conspicuous enterprise in Columbus always, and some of the leaders in their lines—notably the late Samuel Spencer, at the head of the Southern Road—have been of Columbus birth. Columbus has been a place of importance for a very long time and a manufacturing development of more than ordinary magnitude was made here years ago; but what had been done has been greatly added to through helpful forces that have recently got to work, and co-operating with this added strength, the people of Columbus have banded together to accomplish really big results. It is proposed to double or treble the present population of 40,000 within the next 15 or 20 years, and looking over the field and the plans, I don't see why this cannot be done.

Always a beautiful city, with great wide streets, which in the residence section have the charm of tree-lined parkways, either along the curb line or dividing the driveway of the street, Columbus has long been a most attractive place of residence. In a rich agricultural section, it has from early times been a trading point of importance, and being at the head of navigation on the Chattahoochee river, it owns a prestige that can never be disturbed. To these advantages are added the factor of prime importance in the way of industrial development possibilities—the magnificent water-power afforded by the Chattahoochee.

Within a distance of 35 miles, extending from West Point to Columbus, there is a fall of 362 feet in the river, a fall greater than that between Erie and Ontario in the Niagara. More or less definite engineering calculations are to the effect that this fall provides the possibility of a 200,000 horse-power development. Columbus' interests own all of one-half of these water-power potentialities, and are organized to develop them for the benefit of Columbus as rapidly as the demand is made. This is the great strong point in the plans for the future development of Columbus.

While the enterprise of Columbus men—and it is no invidious distinction to give G. Gunby Jordan conspicuous mention for activities in this line—have done great work in the development of the industrial possibilities here, yet there is no disposition to regard as anything but pre-eminently important the augmented hold-

ings acquired within the year by the great interests represented by Stone & Webster of Boston. This remarkably efficient organization, operating through various companies, street railroads, water-powers and water and light properties all over the country, from Nova Scotia to El Paso and Vancouver to Tampa, and for six years having had control of the street railroad and lighting properties of Columbus, all under separate organizations, took over power companies here in February of last year, and will develop up to the maximum capacity as rapidly as it may be required. Under the corporate name of the Columbus Power Co., the Stone & Webster interests acquired the properties of the old Columbus Power Co., which had developed about 9000 horse-power at the "Lover's Leap" dam, North Highlands, and also the undeveloped properties of the Chattahoochee Falls Co. and the Coweta Power Co. These properties extend for 30 miles or so, on both sides of the Chattahoochee, including river bed and riparian rights, and embrace practically all the available shoals and falls between Columbus and West Point.

The present development consists of a dam at Lover's Leap just outside the city limits proper, with a fall of 42 feet, 975 feet in length, anchored to rock at either end and with rock foundation all the way. The length of the spillway is 732 feet. The power house built at the dam is 132 feet long and 31 feet wide, with a switchboard bay 13 feet deep on the down-stream side of the building. It contains five pairs of water-wheels, with provisions for a sixth, of about 1500 horsepower each, direct connected to a 1080 K. W. two-phase alternating current generator of the inductor type, manufactured by the Stanley Manufacturing Co. In addition there are installed two 125-horse-power water-wheels connected to two 60 K. W. direct-current generators. A 15-foot penstock connects with a second power-house on the banks of the tail race, and supplies water to a 1200-horse-power water-wheel. This unit is used to drive the large cotton mills of the Bibbs Manufacturing Co., located just above the dam. The wheels in the power-house discharge their water by means of draft tubes directly under the power-house into a tail race 118 feet wide and from 10 to 15 feet deep.

The power-house is equipped with a 20-ton traveling crane. The switchboard apparatus for controlling the generators, circuits, etc., consists of 10 marble slabs erected in the bay of the power-house and connected with the generators by highly insulated cables running in large conduits under the floor of the power-house. These conduits are built watertight and are large enough to allow the operatives to stand erect and work without inconvenience.

In addition to this water-power development the company has just completed an auxiliary steam plant in the city with 3000 horse-power to provide against electrical emergencies. Should any breakage occur, should a phenomenally low river stage curtail the water power, or should new plants desire more power than could be supplied pending the completion of a new development, the steam plant will be utilized to take care of these emergency demands and prevent any interruption of service. The location of the plant permits of indefinite extension, so that future needs of any probable magnitude have been provided against.

There are possibilities of something

like 75,000 horse-power minimum in the river properties owned by the Columbus Power Co., so it would seem that the day is quite far in the future when a condition will arrive where the demand for water power there will be greater than the supply, although George Otis Draper has declared he has never known of a water-power development where the demand did not ultimately overtake the supply, and certainly that has been the experience of the water-power centers of New England. When that time comes to Columbus, her population, based on the popular theory of 1000 additional population for every 1000 added horse-power, would be more than 60,000 greater than at the present time from industrial development alone. The auxiliary steam plant of the Columbus Power Co. might then become a continuous power producer; but in any event it is so arranged that units of 3000 horse-power can be added on indefinitely.

The building of the auxiliary plant is of reinforced concrete construction, and it is a striking example of this style of building, handsome in appearance, of good proportions and substantial as the granite hills. It is 250x50 feet, and cost with equipment about \$200,000. The equipment includes a 1500 K. W. Curtis turbine with General Electric electrical apparatus; 250 K. W. direct current railway generator, direct connected to a Westinghouse engine, and a 500 K. W. motor generator set.

With 12,000 horse-power thus available, through the water power and steam developments, the immediate requirements of the city are provided for. But as a large number of the manufacturing establishments of Columbus are users of the power, and further industrial growth and street railway extensions would soon require an increased capacity, the company has had surveyors at work on locations for additional developments, and another dam at same point shortly above the present one is a probability of the near future. Indeed, it is manifest that continued development must go on till the entire possibilities of the properties have been worked out.

While there will doubtless be some local development at the various power sites along the entire length of the company's holdings—and in this connection it is easy to see that an extension of the Columbus electric line as far as West Point may some day be found advisable—yet all of the development that may occur will inevitably be of direct benefit to Columbus, so important as a present industrial center, so desirable as a place of residence and so magnificently equipped with educational advantages.

Columbus has been a manufacturing city for more than 60 years, and the great water powers have been utilized to some extent since long before the civil conflict. Right after the war a rehabilitation of industries began, and a steady and important extension has continued ever since.

There are three dams within two miles of the city's center, providing something less than 27,000 horse-power. While cotton products are and always will be a very important feature of the industrial activity of Columbus, yet developments have been made in many lines, and there are vaster possibilities than have ever yet been utilized. There are 14 cotton and woolen mills here now, with two more building. The products range from yarns and brown sheetings to the finest of colored goods, and Columbus products are shipped to every corner of the earth. Columbus has what are said to be the greatest showcase works in the world, the concrete buildings covering acres of ground,

and the product being shipped to the most distant parts of this land and to Cuba, Mexico and South America. Columbus has a great plow factory, and there are numerous other lines in which notable development has been made, such as clothing manufactories, barrel and paper factories, wagon works, hosiery plants, candy factories, brick and clay plants, etc. As there are a great variety of excellent clays in this vicinity, a further development of this industry is counted on. The proximity of Birmingham makes possible a development in the manufacture of iron and steel products, and machinery and tool making is regarded as a very likely development here, so with woodworking, and a long list of industries which the South is certain to attract and which would find conditions at Columbus favorable for.

At the present time there are about 6000 employees in all the industries of the city, with a total weekly payroll of something less than \$50,000. The number of operators in the cotton factories amounts to about 4500. Including the new mills, there are more than 200,000 spindles and between 4300 and 5000 looms.

What Columbus is doing for her workers is something the country should thoroughly understand.

Without attempting to go into details, I will merely mention some of the things the mill men and the authorities of Columbus are doing in the way of providing facilities for education and self-help for the children of the place. For one thing, the mill owners have in many instances provided homes for their operatives at cheap rent and with garden and truck plots surrounding them. In some cases, notably by Mr. Jordan of the Eagle & Phenix Mills, there are kindergarten schools maintained at personal expense for the younger children of the parents who are employed in the mills. Then, in addition to a splendid system of public schools, there is, as a part of the public school system, a primary industrial school, especially established for the benefit of the children of the factory population, where the little ones are taught elemental lessons in useful toil—the little girls to sew and to plant flowers, and the boys to make gardens and become familiar with simple tools, besides which there are drawing lessons, basket making and other work in which all may engage, and there are primary studies from books and recitations and juvenile plays.

All this would be worthy of consideration if it were the extent of the educational provisions made; but it is only the beginning, for there has recently been established here a secondary industrial school of present remarkable scope and based on a plan for future development that will give it front rank among all the institutions of its kind in the United States. Through a combination of individual public spirit and municipal breadth of view, a four-story school building has been constructed and is now partially equipped and in running order, located on a 2½ acre tract not far from the settled portion of the city, and representing in grounds, building and equipment a value of \$100,000. The school is open to all boys and girls over 14 years of age who have sound bodies and a common school education as covered by the ordinary five or six grades. To those living in Columbus, admission is free, and non-residents will be admitted on payment of a nominal fee. Combining academic training with practical instruction of various trade lines, the school will provide the boys and girls of Columbus and vicinity with an opportunity to prepare for remunerative service in the rapidly developing industrial field of the South, to their

own personal advantage and the benefit of the section. The work of the school will progress through 11 months of the year, sessions lasting from 8 A. M. to 4 P. M. with an hour's recess at noon, and held six days in every week. One-half of each day is given to industrial work and one-half to academic work. The academic studies are limited to English science, history and mathematics. The industrial department embraces for boys work in mechanical and textile arts. The mechanical arts department includes practical carpentry, patternmaking, lathe work, foundry, forging and machine work. In the textile arts department the work includes carding, spinning, weaving, dyeing and designing.

For girls there is work in home economy, industrial sewing, textile arts and office help. Home economy embraces cooking, care of the home, sanitation and decorative arts. Industrial sewing embraces dressmaking, millinery and machine sewing. In textile arts the girls have practically the same training as the boys. In office help there are included stenography, typewriting, bookkeeping and cabinet filing.

While the building is not yet entirely complete, there are 80 students enrolled. The school has capacity for 300. Ultimately it is the purpose to erect additional school buildings flanking the present structure, and at the rear, until this becomes a school for industrial training second to none.

Before any man or woman attempts to write a word on Southern industrial conditions or the spirit that animates any operator in the South a sojourn of at least one week should be undertaken at Columbus. The other industrial, textile, technical and manual training schools elsewhere in the South should be visited and the investigator might then be somewhat prepared for an expression of opinion as to what the Southern mill man would like to see brought about, a desire which has found such admirable expression here at Columbus.

In addition to the school facilities, which reflect such credit on the spirit of Columbus, there are 42 churches, embracing every denomination; a marble Y. M. C. A. building, the gift of George Foster Peabody and brothers, natives of Columbus. There are well-appointed social clubhouses and a very charming social life.

There is ample banking capital, and other features of a complete and well ordered business center; there are good daily and weekly newspapers; the Board of Trade is progressive and alive; the street-car system, with its 20 miles of track, is up to date in equipment and service; the electric-lighting service is a feature of the place.

Columbus is well served with railroads, seven lines converging here from different points of the compass, and more are under way. Three lines of steamboats ply between Columbus and the Gulf, and a deep waterway for heavy-draft vessels is being urged on Congress.

With all these conditions, natural and acquired, and with the combination of forces that are at work for Columbus, is it any wonder that a future of vastly greater importance is believed by her people and by the careful investigator to be certainly assured? ALBERT PHENIX.

#### Of Interest to Architects.

Among the numerous public buildings to be erected in the South during the coming year is the City Hall structure for the city of Chattanooga, Tenn. The municipal officers are now making their arrangements to build the hall, and have decided to invite competitive plans from architects. In accordance with this decision formal notice is being given that architects are invited

to submit plans and specifications for a City Hall to cost, exclusive of furnishings and inclusive of architect's fees, not exceeding \$175,000. Full details can be learned by addressing William L. Frier-son, Mayor of Chattanooga.

#### ONLY SMALL LOTS OF PIG DELIVERABLE.

**Birmingham Market Facing an Insufficient Supply of Iron.**

[Special Cor. Manufacturers' Record.]  
Birmingham, Ala., April 22.

These letters have, without fail, since the turn of the year sounded the warning of the condition of the iron market. They have insisted "in season and out of season" that the time was not far off when there would be a demand for iron that could not be supplied. We have been gradually nearing that point until today we are face to face with the problem of an insufficient supply of iron to satisfy the demand. These letters have pointed out the growing scarcity of iron for spot or for nearby delivery and have sounded the warning that there was little probability of this scarcity being remedied this season.

No round lot of iron is available for spot or nearby delivery simply because it is not here to deliver. It is only in small lots that it can be supplied, and these small lots are distributed at discretion. As the season advances the prospects for mitigating this condition do not increase, and it is more than probable that as we approach the later deliveries there will be very little change from the conditions that now exist. A good deal of stress is laid upon the assertion that during the summer ahead of us production will be so much increased that a deficiency is not possible. But there is nothing tangible in the assertion, and those who are pinning their faith to that belief will have nothing but disappointment for a solace. Very little cash iron is held by any one interest, and the sum total of all the holdings in this district of iron available to the general market is insignificant. As it is, there are several buyers to every seller.

During the past week some large buyers have been in the market seeing for themselves the actual condition of affairs, and everyone of them became an importunate buyer. A few of them obtained some iron, but no one of them got the amount he wanted.

To show what a movement there has been of late in iron, it can be stated that the stock now held in furnace yards will run below 15,000 tons. But a very few times since Birmingham became an iron market has the stock in furnace yards been so low. The mere statement of this fact will carry conviction as to real conditions that nothing else would command. We are still running with a number of our furnaces yet out of blast, and there is nothing definite as to the time when they will go into blast. When they do go into blast the probability is there will be others to go out, and there is but a poor possibility of furnace capacity being increased in the near future. Admitting that this statement is incorrect, the fact remains that the anticipated output of those furnaces now out of blast has been sold and no material part of it will be available for the general market. The moral of this statement of the condition of the iron market is simply that those who have failed to cover their requirements for the year are going to be "put to it" to obtain the iron they will need. These statements of the condition of the market here may be surprising to many in the trade, but they are nevertheless true and are worthy the attention of those melters of iron who have postponed covering their requirements for the year.



Spot and nearby delivery iron was sold at varying prices from \$24 down to \$23, but the lots sold were in volume insignificant in both aggregate and individual amounts. As a rule, those bringing the top prices carried special requirements.

There were a few sales of iron for delivery in the second quarter at both \$21.50 and \$22, but this delivery was hard to obtain, and securing it was a matter of good fortune. For delivery in the third quarter there were a few sales at \$19.50, but the majority were on a basis of \$19 for No. 2 foundry. The last half the year was the favorite delivery for both buyers and sellers, and a majority of the transactions were in that option. Some of the sales were made at \$18.50, but the majority of them were on the basis of \$19 for No. 2 foundry. Several thousand tons lots were sold without satisfying the demand. There was one inquiry on the market from an important interest for several thousand tons, which at the close of the week's business was not satisfied. This interest had the reputation of having covered their requirements for the year.

No. 4 foundry sold at basis of \$18.50 for No. 2 foundry, several orders being for 1000 tons, delivery being for the last half the year.

Gray forge was in very fair request and brought irregular prices, spot and nearby deliveries going at the same price as for delivery the last half the year in some cases, while in others exceptional sales were made. One lot of 1000 tons was sold at \$18.50 for May delivery, while mottled iron brought \$18 for 500 tons, April and May delivery.

Some No. 3 foundry sold at \$18 for delivery the last half, the amount being 500 tons. A special sale was made of 300 tons of gray forge for delivery the last half at \$18.50, but the lot carried specifications that made it analysis iron. A lot of 1000 tons of gray forge sold at \$16.50 for delivery the last half, which is on a basis of \$18.50 for No. 2 foundry.

Some gray forge sold for spot and nearby delivery at both \$18 and \$18.50 to clean up stock. One sale of 300 tons was made for October and November delivery on basis of \$19 for No. 2 foundry. The chilling grades of charcoal iron find ready sales at \$27 and the non-chilling grades find buyers at 50 cents less. These representative sales show the character of the market and the irregularity of prices. The only thing in the way of activity is the lack of stock to feed the demand.

The Woodstock Iron & Steel Co. is developing its brown-ore mines, and has erected three ore washers, and will install three more. Mr. Barr, the president of the company, was in the district inspecting their property the past week, and expressed satisfaction at the progress so far made.

The scrap-iron market is rather firm on the castings and stove-plate grades, but is easy with a rather light demand for the other grades. Quotations are a little irregular, as no two of the dealers quote at the same figures. Prices given are approximately correct, and are as follows:

Old iron rails, \$23.50 to \$24.  
Old iron axles, \$24 to \$25.  
Old steel axles, \$15.50 to \$16.  
Old car wheels, \$20.50 to \$21.50.  
No. 1 railroad wrought, \$17.50.  
No. 2 railroad wrought, \$16 to \$17.  
No. 1 country wrought, \$16.  
No. 2 country wrought, \$15.  
No. 1 steel, \$13.50.  
Machinery castings, \$16.50.  
Steel borings, \$9.50 to \$10.  
Cut boiler, \$13.

The various pipe interests continue to be full of work, and they are running at full force, with plenty of business ahead

of them. Quotations are unchanged, but prices are very firm, as follows:

Four and six-inch pipe, \$35.  
Eight, 10 and 12-inch pipe, \$33.  
Large sizes, \$31.  
Extras are 3½ cents.

There is no change in light rails, which are in fine demand, with great difficulty in supplying wants.

The various interests are full of work, and it keeps piling up on them. There is always waiting another job to take the place of one just completed, and some of our industries are running double shift. More would be doing so if labor could be had.

The Hardie-Tynes Company during the past week secured another order for one of its heavy-duty engines to go to Japan. This is but following where they have already led. The sale of 46,000 tons of steel rails by the Tennessee Coal, Iron & Railroad Co. became known here too late to get the news wired in time for last week's issue. It was confirmed at the office here, and the price was \$30. The purchaser was the Louisville & Nashville Railroad Co.

The car situation continues to improve, and the complaints are very few as to inefficient service.

The demand for new machinery continues large. The firm of George E. Lum Machinery Co. reports that it has on its books business approximating \$175,000 in negotiation, and it is for various kinds of machinery in demand by the varied interests of the district. This would indicate that the period of development was in full blast, and that confidence in the continuance of prevailing prosperity was unabated.

The Cahaba coal fields' development has been continuously active for long months, and is now approaching the time when results can be realized. A full authorized statement of conditions there will soon be made public. J. M. K.

#### Electric Manufacturing & Power Co.

The MANUFACTURERS' RECORD has frequently referred to the water-power-electrical developments of the Electric Manufacturing & Power Co. of Spartanburg, S. C. It has received during the week a statement from F. R. Dravo, president of the Dravo Contracting Co., Pittsburg, Pa., in reference to the present status of the construction work. Mr. Dravo says:

"The Electric Manufacturing & Power Co. has the following officers: E. H. Jennings, Pittsburg, president; Julian Kennedy, Pittsburg, vice-president; R. C. Crawford, Pittsburg, treasurer; John C. Slack, Pittsburg; J. E. Sirrine, Greenville, S. C., engineer; offices, care of Colonial Trust Co., Pittsburg, Pa., and Gaffney, S. C. The company is at present completing a plant at Gaston Shoals, on the Broad river, of the capacity of 5750 primary horse-power, and in addition about 4000 secondary horse-power. The plant will be in operation on or about August 1. All contracts have been placed, the contract for the entire plant having been let to the Dravo Contracting Co. of Pittsburg, which sublet contract for electrical apparatus to the General Electric Co. of Schenectady, N. Y., and for water-wheels to the S. Morgan Smith Company of York, Pa.

#### Salem's Glass Plant.

Arrangements are being perfected for the erection of the proposed glass plant of the Catawba Valley Railway & Mining Co. at Salem, Va. It is stated that Charles Armstrong, representing the H. L. Dixon Company, Pittsburg, Pa., is now supervising the laying off site for the plant, which will have a daily capacity of 240 gross pint bottles. The buildings will be erected of wood and corrugated iron, and with the machinery will cost about \$35,000.

## THE UNANIMITY OF PROSPERITY.

[Written for the Manufacturers' Record.]

Messages to the MANUFACTURERS' RECORD from the men of the country who do things, received since the magnificent showing made in our last issue, sustain that well-sounded note of satisfaction with present material conditions and optimism about the future. To be sure, they do not fail to note here and there the possibility of developments that may be a drawback, but they recognize in them no insurmountable difficulties and lose no heart on their account. The additional messages follow:

#### Nothing But Most Adverse Legislation Can Keep the South from Its Own.

[Special to Manufacturers' Record.]

Knoxville, Tenn., April 18.

The industrial development of this section entitles us to widespread recognition. The invaluable assets which we possess in coal, iron, timber and unlimited water-power will eventually make us the industrial center of the country. The development of our practically untouched stores of raw material is just in its infancy, and this, all together with our ideal climatic and labor conditions, will rapidly push us to the front. New lines of railroad throughout our territory, opening up our vast resources, make our greatest possibilities plausible, and nothing but the most adverse of legislation can now hold the South from coming into its own. Our most fortunate system of natural waterways will necessarily work out for itself our rate regulation, and the gradual dredging of our channels will eventually put the entire Mississippi valley in direct touch with Gulf ports for export trade. The South is just realizing its strength.

W. J. OLIVER.

#### Have Doubled Capacity.

[Special to Manufacturers' Record.]

Youngstown, Ohio, April 17.

Our confidence in the business outlook is best shown by doubling in the past six months our producing capacity.

THE GENERAL FIREPROOFING CO.

#### No Weakening in Iron Prices.

[Special to Manufacturers' Record.]

Birmingham, Ala., April 16.

So far as the iron business is concerned, I can detect no weakening whatever in prices; in fact, if there has been any change, pig-iron has been a little stronger for the last two weeks than before. The furnace companies are all so well sold up for the year that even a temporary decline in demand would not, in my opinion, affect the price. I do not believe there has been a time in the last four years when the furnace yards were so clear of stock as at present. The fertilizer movement being pretty well over, the supply of cars for the movement of iron has been very liberal for the last two weeks, and so far as this company is concerned, our yards are practically clean.

J. C. MABEN.

President Sloss-Sheffield Steel & Iron Co.

#### Reliance Upon the Great Common Sense of the American People.

[Special to Manufacturers' Record.]

New York, April 17.

I see no serious cause of uneasiness as to the immediate future. The effects have not ceased of the good agricultural conditions which have existed for several years, or since the last great wheat and cotton market smashes, which put wheat and cotton to prices which paid off farm mortgages and left enough to demand improvements. Nor have the prospects of good crops this year indicated any let-up in the expenditures by those interests, and as those interests are, so all other interests will follow. The great common sense of the American nation will not permit the

socialistic tendencies of impractical school teachers, settlement workers and the acknowledged beliefs of the prominent business disturbers, be they so-called labor leaders or politicians, to seriously interfere with fair and equitable business or labor conditions which will return to capital a fair return for the risks which are undertaken. Radical attacks on railroad and other corporate investments by those who are only half posted will only be declared unconstitutional or revert back on the investments of the masses, for they are the real owners, and the officials are their representatives with so few exceptions that it is impossible to regulate them, especially without ruining the others.

F. H. STILLMAN,

The Watson-Stillman Company.

#### Reached the Climax in the Age of Graft and Wildcat Schemes.

[Special to Manufacturers' Record.]

New York, April 17.

I am of the opinion that the business outlook for the future is very satisfactory, and have good reasons to believe that business will be done on a more conservative basis in the future than in the past. I think we have reached the climax in the age of graft and wildcat schemes. Business, therefore, in the future will be more reliable, although it may not be so plentiful. During the exceptional period of prosperity a business man was compelled to shoulder a good many risks, and oftentimes experienced great losses, which in the future will be avoided, and therefore the business may be even more profitable and of less magnitude than in former times when the sales were perhaps double the amount. We would also have nothing to fear for the future if it would be possible to convince the Honorable Mr. William R. Hearst that the Kaiser had no connection with the German doctor who went to Kentucky to buy a thousand horses and went away with the conviction that Kentucky cannot improve the breed of its own horses over those in Germany, and thus avoid war between the United States and Germany.

R. F. ABBE,

President J. R. Alsing Co., Inc.

#### A Slight Relaxation Might Be Beneficial.

[Special to Manufacturers' Record.]

New York, April 17.

In our judgment, we can see no signs of relaxation in volume of business. Product of our works is sold ahead for six months, and prospects are such as to indicate an increased volume well into 1908. Almost impossible to obtain pig-iron tubes and castings at prevailing prices for prompt delivery. We believe that wise management in the large industrial corporations of the country has outlined the policy of installing such economies as have been proved valuable by the expenditure of part of the profits earned in the past three years, thus placing themselves in position to operate at the same percentage of profit should there be reduction on price of finished product during the next 18 months. In our opinion, a slight relaxation in the demand would be beneficial, as it would enable many manufacturing concerns to shut down and overhaul plants for much needed repairs, which have been impossible, due to the tremendous strain imposed upon them. It may be possible that many of the necessary extensions and improvements contemplated by the railroads will be abandoned, due to anti-railroad legislation, which will aggravate the existing car shortage, which shortage, with the present tremendous volume of freight, has proved quite serious. In our opinion, however, if these improvements are completed

as outlined we can see no reason to fear any decline during the next 18 months.

POWER SPECIALTY CO.

#### Fairly Swamped With Orders.

[Special to Manufacturers' Record.]  
Athol, Mass., April 16.

We regret that we were unable to prepare a message to be telegraphed you on the general business conditions and outlook as requested, as we are so busy with work connected with getting out a new catalogue that everything not absolutely necessary is allowed to slide. We would say, however, that the present state of business is sufficient to fairly swamp us with orders, and there are no signs of a let-up. We expect, however, that the summer months will show some decrease in our orders, as usual.

THE L. S. STARRETT COMPANY,  
By F. E. WING, Advertising Manager.

#### No Let-Up of Business Save in Newspaper Articles.

[Special to Manufacturers' Record.]  
Columbus, Ohio, April 16.

Your letter of the 13th reached us promptly on the 15th, but did not come to the writer's attention, due to the tremendous volume of mail that always reaches our office on Monday, until too late to get a wire off to you. Had we gotten a wire off to you we would have been very much tempted to have simply telegraphed you that we were too busy taking care of new inquiries and the business already in hand to devote any time to sending telegrams that did not distinctly and definitely relate to our business. In other words, there does not seem to be the slightest indication of any let-up in business save in the articles that are appearing in the newspapers.

R. GROSVENOR HUTCHINS,  
Vice-President Jeffrey Manufacturing Co.

#### Rapidly Increasing Capacity.

[Special to Manufacturers' Record.]  
North Plymouth, Mass., April 18.

In keeping with the general prosperity of the country, we have been highly favored in the amount of business coming to us, and there is no reason yet apparent why this period of heavy demand should not continue for some time to come. In common with many other manufacturers, we are rapidly increasing our capacity in the effort to meet present and future demands. A large proportion of our product consists of binder twine, a material of absolute necessity in all grain-producing territory. This, of course, makes a factor which is not subject to change in exactly the same way as products used entirely outside the agricultural field.

G. F. HOLMES,  
Treasurer Plymouth Cordage Co.

#### Expressions of Pessimism Should Not Be Loud.

[Special to Manufacturers' Record.]  
Buffalo, N. Y., April 17.

It is difficult to put into words the situation as we see it at the present time and have that opinion of any particular value. While I do not feel that it is any time for optimism, I still less feel that expressions of pessimism should be given loud cry.

THE GEORGE N. PIERCE COMPANY.

#### Prospects Good.

[Special to Manufacturers' Record.]  
Macon, Ga., April 17.

As far as indications point, as we see them, prospects are good for a continuation of the past months.

J. S. SCHOFIELD'S SONS COMPANY,  
FRANCIS HERRING, Secretary.

#### Larger Business Than Ever Assured.

[Special to Manufacturers' Record.]  
New York, April 18.

Since the first of the year our sales and orders have steadily increased. The volume of business is still very much ahead of what it was at this time last year, and orders coming in, both direct, through the mail and from our salesmen, will keep us

busy well into the summer months and already assure us of bigger business than at any time during our history. The reports from all our salesmen as to conditions in their different territories give us every confidence of the continuance of the present prosperity. We are, therefore, anticipating further increased business and are adding to our machinery and adopting such other facilities as will enable us to handle same.

ZUCKER & LEVETT & LOEB CO.,  
By J. MALONEY COOK.

#### MUSCLE SHOALS POWER.

##### Hearing on Plans for Its Development.

[Special Cor. Manufacturers' Record.]  
Florence, Ala., April 19.

The board of engineer officers appointed by the Secretary of War in accordance with the provisions of river and harbor act of March 2, 1907, will meet at the United States Engineer Office, Chattanooga, Tenn., on Tuesday, May 7, 1907, to examine the present conditions of the United States canal and the Tennessee river from the head of Elk river shoals to the Florence, Ala., railway bridge, with a view to permitting the improvement of the above-described stretch of river by private or corporate agency in conjunction with the development of water-power by means of not more than three dams and three locks. All persons interested are invited to be present at the meeting and present any pertinent facts in writing. Lieut.-Col. Wm. T. Rossell, Corps of Engineers, U. S. A., Cincinnati, Ohio, is senior member of the board.

It will be remembered that Hon. William Richardson introduced in the last Congress a bill granting to the Hydro-Electric Company a right to erect these locks and dams, and upon the recommendation of the Secretary of War and the chief engineer it was deemed expedient to appoint this commission, who were ordered to report by the time Congress will assemble in December, 1907, that future action could be taken on said bill. It is contemplated by this bill that \$19,000,000 will be spent in developing this great water-power.

THURSTON H. ALLEN.

#### Secretary Needed for Organization.

There is an increasing activity seen in the efforts of industrial organizations to promote the interests of their various sections. One evidence of this is seen in the several recent requests received by the MANUFACTURERS' RECORD for names of men available for the office of secretary of such organizations. Mr. Thomas Gamble, Jr., of Americus, Ga., now informs us that the Board of Trade of his city needs an energetic secretary, one who is prepared to obtain results. Correspondence is invited.

#### Another Water-Power Electrical Plant.

THE MANUFACTURERS' RECORD of February 21 stated briefly that Messrs. A. B. Groce & Sons of Woodruff, S. C., intend to develop the water-power of Van Patton Shoals on the Enoree river. It is now informed that some 2000 horse-power will be obtained for transmission by electricity, for lighting and power purposes, Messrs. Ladshaw & Ladshaw of Spartanburg, S. C., being engaged as engineers in charge of construction.

The Business Men's League of Benton, Ark., has elected Messrs. J. F. Lee, president; W. M. Steed, vice-president; F. H. Petts, secretary; G. R. Kelley, treasurer, and W. C. Caldwell, A. S. Henley, F. H. Petts, E. S. Perry, J. C. Kinkead, W. M. Steed, G. R. Kelley, F. C. Bush and J. F. Lee, board of directors.

## NEW ENGLAND COTTON-MILL MEN.

### Features of the Annual Meeting of Their Association in Boston.

Features of the annual meeting this week at Boston of the National Association of Cotton Manufacturers, successor to the New England Cotton Manufacturers' Association, included, in addition to addresses of welcome by President Henry S. Pritchett of the Massachusetts Institute of Technology and by Mayor John F. Fitzgerald and the annual address by President James R. MacColl of Providence, R. I., papers on "Corporations and the Public Welfare," by Everett W. Burdett, Esq., Boston, Mass.; "The Cost of Maintenance and Depreciation in Cotton Mills," by Harvey Stuart Chase, Esq., Boston, Mass.; "Taxation and Valuation With Reference to Industrial Plants," by Henry K. Powell, Esq., Boston, Mass.; "The New York Cotton Exchange and Its Contract for Delivery of Cotton," by Samuel T. Hubbard, New York city; "The Tariff on Cotton Goods," by Edwin A. Hartshorn, New York city; "American Cotton Textiles in the Far East," by John Foord, secretary American Asiatic Association, New York city; "Sea Island Cotton," by G. A. Gordon, Savannah, Ga.; "Report of Committee on Moisture in Baled Cotton," by William D. Hartshorne, Chairman; C. P. Brooks and Louis A. Olney; "Primitive Designs as Influenced by the Textile Arts," by Miss Harriet Newell Wardel, Philadel-

phia, Pa.; "The Textile School a Necessity to the Future of the Industry," by Edward W. France, director Philadelphia Textile School, Philadelphia, Pa.; "The Whitin High-Speed Comber," by G. Marston Whitin, Whitinsville, Mass.; "Proposed System for Cleaning Machinery," by Robert Schaeffbaum, Providence, R. I.; "Hot Water Heating by Forced Circulation," by J. A. Almirall, New York city; "Reinforced Concrete Construction Especially Applied to Mill Use," by Adolph Suck, M.E., Boston, Mass.

In his annual report Secretary C. J. H. Woodbury recalled that the fifth association medal had been awarded last year to Mr. William D. Hartshorne for his paper on some comparative data on moisture in cotton and worsted. Students' medals to members of graduating classes of textile schools were awarded to Thomas Wilson Williamson, Baltimore, Md., a graduate of the New Bedford Textile School; Herbert Charles Wood, Lowell, Mass., a graduate of the Lowell Textile School; Wiley Nesbit Bagwell, Auburn, Maine, a graduate of the Georgia School of Technology; Louis Hart Talcott, A.B., Vernon, Conn., a graduate of the Philadelphia Textile School. The secretary reported that the membership of the association on April 1, 1907, was 879.

#### BROAD OUTLOOK UPON THE TEXTILE INDUSTRY.\*

By JAMES R. MACCOLL of Providence, R. I.

I am glad to congratulate you upon the continued activity and prosperity of our industry. This condition seems to be world-wide. There is adequate consumption, or at least demand, to employ every spindle and loom. A year ago we recorded England's increase of 6,250,000 spindles. The latest reports show 10,000,000 spindles added or projected within five years, which equals the growth of the previous 30 years. In our own country there has been a normal addition of spindles; imports of cotton manufactures have increased during 1906 as compared with 1905 \$14,500,000, or 26 per cent.; exports have diminished \$13,500,000, or 24 per cent.; yet there is no evidence of over-supply or glutted markets. Extension of foreign trade is for the moment ignored, on account of the home demand absorbing all the output.

There are frequent questionings as to how long this condition may continue. It is evident that the great nations of the world are bound together more closely than ever before in their commercial affairs, and that extreme activity or depression must generally be world-wide. An insufficient demand for the product of England's 56,000,000 spindles will quickly produce lower prices, which will enable many classes of goods to be landed in this country at a cost much below the present level of American production. Recent reports from American consuls and special agents in Europe show that wages in the building trade are three times higher here than in Europe. This affects materially the cost of building new plants. These reports also show that the wages of American textile operatives are in many classes of work more than double the European standard. Everything that enters into the cost of production is getting on to an excessively high level. It is hardly to be expected that the present tariff can prevent large importations of foreign goods, unless we can maintain our lead in the use of labor-sav-

\*From annual address of President of the National Association of Cotton Manufacturers.

ing methods and devices. But the fact is that our foreign competitors are keenly alive to the situation, and are rapidly adopting American improvements, and there are already many mills abroad that are fully equipped with every American device.

The raw material has furnished more than its usual contribution to the problems of the cotton manufacturer during the last six months. The remarkable storms of September and October had a disastrous effect on the crop, especially in the Mississippi delta. As regards staple and grade, what promised to be a large and splendid crop was suddenly changed to a crop both inadequate and unsatisfactory. The result has been an advance of 50 to 100 per cent. in the price of staple cottons of good grade. Many mills have had to substitute Egyptian for American cotton, and some are using lower grades than they ever before attempted. Shippers who sold cotton at "points on" have in many cases lost heavily in filling their contracts, and it is probable that this method of selling cotton, with the inadequate hedge which the future market offers, will be curtailed materially in the coming season. From the mill standpoint the result of the storms may be beneficial in teaching manufacturers how to use lower grade cotton.

The congestion of cotton at compress and shipping points has during the present season been unprecedented. It is apparent that compress and railroad facilities are entirely inadequate for a crop of 14,000,000 bales, and the demands of the world will be far in excess of that amount at no distant date. The remedy is to be found in equipping ginneries with presses that are capable of producing bales with a density of 35 to 40 pounds per cubic foot. The economy in cars would be enormous, compared with the present system, under which cotton is loosely packed at the ginneries, transferred to compresses, unloaded and then reloaded after compressing.

The delay in transit to the mills is excessive. An average of two to three months is required to bring cotton from



the South to New England mills. In some instances railroads have issued bills of lading on presentation of compress receipts without the cotton being actually in their possession. A prominent English spinner informs me that bills of lading have been received in England for cotton shipped in a specified steamer, and on being traced the cotton was found months after at interior towns in Texas. Such a system is fraudulent, and should be stopped by an appeal to the Interstate Commerce Commission or by action in the Federal courts.

The principle of reciprocal demurrage seems to be just, namely, that if the railroad charges consignees for delay in emptying cars, the consignee should have the right to charge railroads for dilatoriness in forwarding and delivering. Why should manufacturers have to lose several months' interest on cotton payments through unnecessary railroad delay, and at the same time be subjected to serious inconvenience in the management of their business?

I have earnestly advocated during the last two years closer relations between growers and manufacturers, because it seems to me that only in this way can improvements be brought about in the handling, baling and marketing of our raw material. I have received many letters from organizations and individual planters in the South asking for information as to the requirements of the spinners, and stating their desire to supply what the spinners want, and to get into closer touch with them. It is proposed to hold a second conference in Atlanta on October 7, 8 and 9 of this year. There will probably be an important delegation present from Europe, and arrangements are being made for a special trip through the cotton States for the benefit both of foreign and American manufacturers. The following are some of the subjects that may be discussed: Improved ginning and compressing, uniformity of bales, tare, moisture, warehouses, transportation, uniform classification, buying on net weight, cotton contracts of various exchanges, stability of price, closer trade relations between growers and manufacturers, Government crop reports.

There is a widely prevalent and frequently expressed opinion among growers that manufacturers are antagonistic to their interests, and are continually conspiring and working to lower the price of cotton. It must be admitted that each individual manufacturer desires to buy his cotton at the lowest price of the season, just as the grower who purchases cotton cloth tries to make the best bargain he can. But this is entirely different from desiring or advocating low prices for the great Southern product. The interests of the New England manufacturers are all in favor of high-priced cotton. It means prosperity to the South, and therefore greater purchasing power for the output of Northern looms. The higher prices must also be paid by the foreign buyer, who takes 60 per cent. of the output, and thereby the balance of trade in our favor as a nation is increased. High-priced cotton adds to the duty on many classes of goods, and thus strengthens the domestic manufacturer's position in competition with his foreign rival. Once for all, we say to the Southern grower: Get all you can for your cotton; the more you get, the better we are pleased.

It should, however, be continually advocated as a sound rule of business and economics that the cotton-grower, by the adoption of every possible improvement, should seek to lower the cost of producing his cotton. The cheaper the material, the larger the volume of business that can be done. It is twice as profitable for the planter to grow a bale per acre costing

eight cents per pound and selling at ten cents as it is to grow half a bale per acre costing ten cents and selling at twelve cents per pound.

It seems to me a patriotic duty to urge and encourage the growth of sufficient cotton in our Southern States to supply the world's requirements, and thus to discourage the attempts being made to raise cotton in Africa, Asia and elsewhere. The foreign and American spinner are in exactly the same position, and have the same rights and opportunities in purchasing the Southern cotton crop. If the foreign spinner should see fit to buy land in the South and grow cotton there, is it not more advantageous to this country than it would be to have him carry on the business in West Africa?

The second report of the British Cotton Growing Association is a story of failure in some quarters and of marked success in others. In general the outlook is optimistic, provided enough financial support is received during the next few years. The subscribed capital has been increased \$300,000 during the year.

In my opinion, the time has come when a cotton exchange should be established in New England, where two-thirds of the spindles of this country are located. With their excellent port and railroad facilities, either Boston or Providence should grasp the opportunity that is presented. Such an organization should embody the best ideas and methods of all the cotton exchanges of the world. As in Bremen, the membership should be composed of both cotton merchants and manufacturers. The remarkable success of the Bremen exchange is largely attributed to this joint co-operation for mutual advantage. The establishment of fixed standards of grade and staple and a system of arbitration by sworn classifiers would be of great value to New England spinners.

The spot feature of the Liverpool market could be developed. With the changed and changing conditions in the South, a concentrated stock of spot cotton in New England would be of inestimable benefit to our factories.

Another feature might be a future contract market, dealing in spinable cotton; that is to say, cotton which in each 100-bale contract is practically uniform in grade and staple, the differences on deliverable grades being regulated by actual market values. The cotton industry of New England will undoubtedly have tremendous growth and expansion in the years to come. A local cotton market and exchange would be a leading factor in this development, and would also add greatly to the commercial importance and prosperity of the city which adopts it. Such a movement would require the enthusiastic help of bankers, manufacturers and merchants, but it would be far-reaching in its possibilities and results.

In many mill centers the manufacturer's difficulty lies not in lack of help, but in its inefficiency. Numerous mills have represented among their employees 10 or more nationalities, and about as many languages. Overseers frequently have to instruct by sign rather than speech. Many of these people have neither inherited talent nor acquired experience in textile work. Trained employees of other nationalities seem to prefer to work for half the pay in stores and in other branches of industry which are classed as higher grade than the cotton mill. All this is a serious handicap in producing goods of equal merit to fabrics made abroad, where efficient help can readily be obtained. The immigration law provides "that skilled labor may be imported if labor of like kind unemployed cannot be found in this country." The present condition would undoubtedly justify cotton manufacturers in importing

skilled labor, but the law does not state any practicable method of carrying out the proviso.

In Bulletin 69 of the Bureau of the Census, entitled "Child Labor in the United States," it is stated, "to a greater extent than any other manufacturing or mechanical industry, the cotton mill furnishes employment to children." In view of the existing public sentiment against child labor, it is interesting to analyze the figures of the census of 1900 as they apply to our industry. The total number of children under 14 years of age employed in cotton mills is 18,926. Of this number, the Southern States contributed 16,105 and the Northern States 2821. The conditions existing abroad should also be considered in connection with this question. Belgium and Italy forbid employment in factories of children under 12 years; in France the standard is 13; in Germany, 13, with only six hours of work allowed per day up to 14 years of age; in Austria and Switzerland, 14 years; in Britain the half-time system of working alternated days, or half of each day, prevails from 12 to 14. In most countries there is an educational and physical standard required up to a higher age than stated above.

It is not likely that our country will long tolerate in any of its States a lower standard than prevails in the most enlightened European countries, and I believe that cotton manufacturers heartily approve the 14-year limit. Consideration should, however, be given to conditions in the South. It is not to be expected that the Southern States can accomplish in a few years what has taken a century in the older manufacturing States of America and in foreign countries. The modern development of cotton manufacturing in the South has given employment and opportunity in life to thousands who previously were almost destitute, and Southern manufacturers plead for time to work out this problem without crippling industrial progress. The stigma attached to cotton manufacturing through employing so many children under 14 should at no distant date be entirely removed, and doubtless it will be. In considering a higher age limit than 14 there is much room for debate as to what is for the best welfare of the child, the family and the industry. Possibly an edu-

cational and physical standard is advisable above 14. The industrial school system, which has been adopted so extensively in Germany, and is contemplated in Massachusetts, may afford the right kind of advanced education, thereby increasing opportunity, and at the same time providing better trained workers for our factories. I believe that any arbitrary law which would prohibit work in mills to children who had reached the age of 14, and had come up to a required physical and educational standard, would be injurious to the best interests of all concerned. Not a few of the most successful members of this association began work at 14, and in some cases much earlier.

There are many forms of labor legislation that are obnoxious and should be stoutly opposed, but I believe that, in justice both to work people and employers, there should be a law to provide fair and proper remuneration to employees who are injured by accident.

There are now two large manufacturing associations with similar purposes and aims. Our own, the National Association, represents more particularly the North, and the American Cotton Manufacturers' Association has a large proportion of its membership in the South. It might be advisable for these two associations to enter into negotiations aiming at a closer affiliation. If nothing more could be accomplished, their spring meeting might be held biennially in joint session at Washington or Philadelphia, thus affording an opportunity for the interchange of ideas and more united action in matters of importance to the cotton trade.

For this meeting the board of government presents an attractive program of addresses and papers touching upon commercial and mechanical subjects. Our membership is composed about equally of representatives of these two sides of the industry. Cotton manufacturing in our country is capable of tremendous expansion in the years to come, and there is scope for the exercise of the highest commercial as well as technical ability. The American people will not always be satisfied to grow 80 per cent. of the world's cotton and spin only 25 per cent. of it. Gentlemen, the opportunity is yours.

#### REINFORCED CONCRETE CONSTRUCTION IN MILLS.\*

By ADOLPH SUCK, Mem. Am. Soc. Mech. Eng., Boston, Mass.

To the inexperienced, reinforced concrete construction is considered a fad. Present-day conditions has demanded this type of construction, and it has long since passed the stage of fad and experiment. This form of construction is considered in its infancy by many, and, I am sorry to say, you will find architects and engineers today who are condemning it, but I will say to the skeptical that this class of construction, when properly designed and erected, is stronger and better than any known building material, whether of brick, stone or iron, and I can show a large number of buildings constructed of this material which bears out my statements as to its adaptability to any use. While this country has not progressed along these lines to the extent that has been done in foreign countries, we have made considerable strides, and there is now no State in the Union without buildings of this class.

Most of the agitation against this form of construction comes from architects and contractors who have no knowledge of it. Up to the present time very few contractors are able to figure on concrete buildings, and many large mill contractors, instead of competing with other contractors in this line, urge the construction of buildings with which they are familiar.

\*From a paper before the National Association of Cotton Manufacturers.

Few architects are now able to figure and design the reinforcements for these structures, and, as would be expected, advocate a form of construction with which they are familiar and condemn the types that they are not capable of handling.

Some of the conditions that have brought about the erection of buildings from this material, and which are forcing millowners to consider its merits, are:

- 1st. The cheapness of the cement, due to its increased production within late years.
- 2d. The scarcity of timber.
- 3d. The increased cost of labor.
- 4th. The question of insurance.

Cement, one of the chief ingredients used in concrete construction, can be and is now manufactured at a profit in nearly every section of the country; 40,000,000 barrels of cement were used in construction work last year, against 17,250,000 barrels five years ago. This increased demand and production, together with improved manufacturing processes, has brought the cost of this material to a point where buildings constructed of it can be erected to compare favorably in cost with buildings constructed of other material. Further reductions in the cost of cement, which will come with the growing demand and production, will considerably reduce the cost of concrete buildings that will be built in

the future. As cement is now produced in many different sections of the country from varying raw material, it, of course, varies in its different essential qualities. Each lot of cement used in the construction of a concrete building should be put to a critical test to determine its resistance to crushing and for impurities that rob it of its value for this purpose.

The timber that is used in mill building and large structures is that known as long-leaf hard pine, and you all know that this is getting scarce. The cost of heavy timber suitable for mill purposes is in the neighborhood of \$45 per thousand, and even at this price it is often impossible to secure a suitable stick. The scarcity of timber is becoming more noticeable as each season advances, and within a short time other materials than timber must be used in the construction of mill buildings.

The scarcity and increased cost of skilled labor makes it very expensive to erect factory buildings today out of brick and timber. Consequently, a substitute had to be found that would decrease the cost of buildings. This has been found by a few pioneers, and will in time be realized by all, to be in reinforced concrete construction. Reinforced concrete construction requires very little of the skilled labor that is used in handling other building materials, as a great deal of the work is done by machinery and unskilled laborers.

Steel and cast iron are not strictly fireproof materials. There is no question about the heat resistance and stability of reinforced concrete buildings when properly built, as they are strictly fireproof. Buildings of this class require no insurance; it is necessary only to insure and protect the contents of these buildings, and even if the contents of a properly constructed reinforced concrete building should be totally destroyed by fire, the building will remain intact and practically undamaged.

A reinforced concrete building is constructed of cement, sand, broken stone or gravel, and steel.

The sand that is used should be free from loam or vegetable matter, and should be clean and sharp. Great attention should be paid to the quality and kind of sand that is used, as upon this depends the stability of the structure. To the inexperienced all sands look alike, but to those who know there is a great difference in the qualities and kinds of sands that should and should not be used in the construction of a concrete building.

In structures of this kind it is preferable to use broken or crushed stone, but when such is not readily obtainable good screened gravel makes an excellent substitute. The broken stone should be in various sizes, so that they will compact well together. When the sizes are not properly blended it will require an access of cement and sand to fill the voids between larger stones, and in consequence increase the cost of the structure. Great care should be taken in selecting material of the proper size to use in the various members of the structure. For thin walls and light beams of short span fine broken stone or gravel should be used. Larger members require larger stones or gravel, and in foundation work and unreinforced places stones two inches or more in diameter can be used. At the same time, and in all cases, stones of smaller sizes should be used to fill in the voids between the larger ones.

The steel should be mild steel, of a quality to allow for cold bending of 180 degrees around its own diameter. It should pass suitable inspection before it is used. The sizes depend upon the design of the building and the work it is called upon to perform under the varying conditions of strain that it is subjected to in various parts of the building.

We know that Portland cement concrete continues to increase in strength with age. Experiments have shown the increase in strength up to two years of age. It is possible that it continues to gain strength after that length of time, but no practical experiments have given us data on this point. From the time when it reaches its most perfect state it must necessarily deteriorate. It may take a thousand years, it may take five thousand years for it to lose its value as a sustainer of the loads that it was originally designed to carry. Concrete can withstand the weather, and requires no painting or repairing.

The speed with which buildings of this character can be erected is sometimes of the greatest advantage. The labor and the greater part of the material can in most cases be obtained locally. Great speed can be attained if the contractor has the proper machinery and organization. A great part of the cost of erecting a concrete structure is for the wood forms. In a properly designed building these forms can be used over and over again, which not only saves on the cost of the building, but allows more speed in the erection. At the present prices of lumber the cost of the forms is heavy, and the engineer of concrete construction must economize the centering material in his design, so as to make repeated use of each piece. This can be easily accomplished where a building is largely a repetition of parts.

A great deal depends upon the correct placing of the steel and pouring of the cement. The size and position of each bar of steel is determined by elaborate and careful calculation by the engineer, and an experienced inspector should be employed on the works to see that the design is rigidly followed.

In some cases the columns, beams and floor slabs are cast on the ground and erected as you would structural steel. By this method three sides only are required for the molds, and speed is sometimes gained in erecting the structure on account of not having to wait for the material to harden in one course before the form can be taken down to begin the next one. In other cases it is advisable to mold the members in position in the structure.

There is hardly a limit to the carrying capacity of this material. The writer has designed several buildings where the floor carries a live load as high as 3000 pounds per square foot with a large factor of safety, the main girders being 30 inches wide by 37 inches deep.

In a concrete building you have none of these features. The floors and beams above will not burn. Fire on one floor cannot travel to the floors above or below. Fire on one floor of a concrete building will not bring down the machinery above, neither will the water used in putting out a fire on one floor damage and destroy the machinery and material on every other floor below it, as is the case with any other type of construction.

You all know of the great vibration in textile mills, especially in a weave mill. I have been asked several times during the past years what effect this continuous vibration will have on a reinforced concrete building. In answer to this statement I will answer "none," as the whole structure will take up the vibration that originates in any particular member, transmitting it throughout the entire structure equally, because of it being monolithic. In other words, it is as if it were hewn from a solid block of granite, and each vibration must travel through and be lost in the counter vibration and in the rigid portions of the structure. A building at Portsmouth, N. H., designed by the writer is every day receiving one of the severest tests of vibration. This building is used for drop forging, having four ham-

mers of five tons capacity. When these hammers are working one can feel the ground shake blocks away, and yet the building today shows no single sign of the effects of the vibration. A brick building under these same conditions would have to be replaced within a short time and would call for continuous repairs.

An item that appeals to most all mill-owners is the cost. Much of this will depend upon the designers of the building and the design employed. The cost of labor, steel, cement, sand and stone is, of course, determined locally and is a large factor in the cost of a building of this class. From 25 per cent. to 30 per cent. of the cost of a concrete building is in the wood forms, and therefore the cost of lumber has to be considered, yet with a proper design the same lumber can be used over and over again and a great saving made on this item.

A reinforced concrete mill building can be built at a profit to the contractor for about 90 cents to 100 cents per square foot for each floor of a building three stories high; of course, the higher you go the less the cost per square foot.

As I have said before, this country has been slow to adopt this form of construc-

tion. We have been fortunate in years past in having at our doors an abundance of cheap and good building material, and it has not been found necessary to depart from time-honored methods. We have now reached the end of our cheap material, and must find a substitute and at the same time improve our factory buildings. Our fire risks are great, and can only be lessened by the use of this strictly fireproof material. The troubles and losses arising from a leaky steam and water pipe, floor scrubbing, tipped over fire pails and oil tanks and the hundred other annoyances due to water or oil going through the floors are eliminated in this type of building. Shafting will not be continually getting out of line. The annoyance of static electricity will be overcome, as there are no openings around the window frames and leaky walls to admit the dry and frosty air. The mill can be lit and ventilated as in any type of building. There are no hiding places for rats and vermin, neither can there be oil-soaked and water-soaked floors. There are no rough and uneven walls and ceilings to act as dust catchers and slug producers. In fact, no safer and cleaner type of building can be had for textile purposes.

### AMERICAN COTTON TEXTILES IN THE FAR EAST.\*

By JOHN FOORD of New York City.

It is easy to exaggerate the possibilities of the expansion of our trade in cotton textiles in Asia. It sounds sufficiently impressive to be told that in cotton goods alone the value of the imports of the Oriental people amount to \$300,000,000 annually, and it sounds like a reproach to say that the share which we are supplying of this is almost infinitesimal, except in Northern China. As a matter of fact, in the year that these people bought \$300,000,000 worth of foreign cotton goods the American contribution to the total was only \$37,300,000. As of this amount \$33,500,000 represented the value of our sales to China, our contribution to the Oriental trade outside of China was a very small fraction indeed. That is to say, China bought in that year foreign cotton manufactures to the value of \$128,500,000, of which the United States supplied a little less than 16 per cent., while the other countries, roughly classed as "Oriental," took \$171,500,000 worth of similar goods, of which the share of the United States was less than 2½ per cent. These so-called Oriental countries comprise not only the nations of Asia, but some of the communities of Northern Africa and of Oceanica in addition, and include half the population of the globe.

I am not disposed to regard these figures as symptomatic of our failure in the markets of the Orient. Strictly speaking, the possibilities of these and other markets for our cotton textiles are very much what we choose to make them. It seems like a reflection on American energy and enterprise to point out that while we produce three-fourths of the world's cotton, we permit two-thirds of it to pass out of the country in its natural state to be elsewhere transformed into cotton goods, of which the total value entering international commerce amounts to nearly \$700,000,000 annually. But it must be assured that a perfectly simple explanation of this is to be found in the conditions governing the employment of our capital and labor. At a time when there is a deficiency of productive power to supply the needs of the home market, some other word than "failure" must be employed to describe the paucity of our contributions of manufactured goods to foreign markets.

There was a time when a stoppage of the export demand for American cotton

\*From a paper before the National Association of Cotton Manufacturers.

cloths for China would have produced a serious dislocation of the entire cotton textile industry of the country. Whatever may be the possibilities of the future, no such condition exists today. But our immediate independence of an export outlet for surplus production does not affect the wisdom of a policy looking to the expansion of this trade along the lines of its moral development.

"China's trade possibilities are immeasurable," was the verdict of a commission of Lancashire cotton spinners who went through the country in 1898. "Foreign trade has merely scratched the surface of the possibilities of China," was the dictum of the Lyons commercial mission which traversed China about the same time, and to this was added the remark: "The great majority of the Chinese are familiar neither with foreigners nor with foreign products."

For the present there is a famine in the land, and rice is inordinately high. But this temporary arrest of the purchasing power of the Chinese millions will pass, and with every new development of the energy which has begun to stir throughout the empire will come the elevation of the people to a higher plane of comfort, with a corresponding increase of capacity to consume.

It is manifestly a question of vital importance for the people of this republic, no less than for the membership of industrial organization like yours, that our relations should be those of perfect friendship with an empire comprising at least one-fifth of the human race and but newly entered on the path that leads to wealth and power. The narrow-minded and short-sighted prejudice of a small section of our people which has operated to prevent the maintenance of satisfactory relations between the United States and China must cease to be the potent influence which it is in our domestic politics if we are to have the share of the greatest of unexploited markets to which our geographical position and boundless resources entitle us. The spirit which animated the references to this subject in the President's message of December, 1905, is, unfortunately, one which Congress has not seen fit to imitate, and there has been no sufficiently imperative popular mandate in regard to our treatment of China entitled to come to this country to enable members of Con-



gress to disregard the clamor that comes from the Pacific coast whenever it is a question of liberalizing our Chinese exclusion legislation. But I am not more sure that trouble will follow the sop which has been thrown to the Japanese and Korean Exclusion League than I am that we must revise in a more enlightened spirit than

#### ON MOISTURE IN BALED COTTON.\*

Your committee has not been able to secure as many tests of baled cotton as they deem desirable to formulate very definite conclusions as to the prevailing condition of the cotton as shipped, or as received at the mill, but they believe that they have formulated a sufficiently accurate method of taking the samples for obtaining approximately the true conditioned weight.

It is well known that there is often a very material loss in weight at the time of receipt at the mill over the invoiced weight. On the other hand, there is sometimes a very large gain, showing that the cotton has been subjected to bad weather conditions in transit. It might be said that imported cotton usually runs very even from the inside to the outside of the bale, and the received weight approximates very closely to the invoiced weight. The cotton from the Mississippi valley varies very greatly in its condition, sometimes being much more moist in the middle than on the outside, at least at the time of receipt. In the latter case it will usually be found that there has been a large loss in weight in transit, owing to the excessive moisture state of the whole bale. It is hard to suppose a condition of over 16 per cent. of moisture in the cotton to have been due to other than artificial conditions.

In order that further information may be secured on parallel lines, the committee suggests the following rules for obtaining samples and applying the information ob-

we have recently manifested the whole fabric of our legislation and treaties in regard to Chinese immigration if we are to enjoy equal opportunities with other nations for securing part of the enormous trade which must accompany the new birth of a progressive civilization in the oldest and greatest of empires.

tained from the tests showing their condition:

First. Weigh the bale.

Second. Measuring from the center, drive a nail at one-quarter and at three-quarters the distance from the center to the position of the first hoop.

Third. Take samples when opening the bales from the exterior surface, and from each of the two layers above referred to, labeling them, respectively, "exterior," "three-quarters," "one-quarter." Of course, the above nails should be located with reference to the side of the bale which is to be first opened.

Fourth. For the average condition of the bales take the simple average of the three tests above provided for, noting that it is important, in order that this simple average may give a correct result, that the location of the tests shall be as prescribed.

Fifth. Weigh the tare and get the net of the bale.

Sixth. "To obtain the absolutely dry weight of the bale divide the net weight by one, plus the average regain found. (Expressed decimally.)"

Seventh. "Add 8½ per cent. to the absolutely dry weight to get the so-called standard condition weight."

"The difference between this weight and the actual weight at the time of invoicing represents the loss to the buyer on above basis."

veritable revolution in the sphere of commerce and manufacture.

The International Gas Power Co.'s process of converting lignite or bituminous coal into gas is very simple, and the peculiar and impressive feature of the process is that nothing is wasted. There is no by-product whatever. All the elements are converted into gas, and the residue is simply ashes, and not much of that. A cylindrical generator, jacketed with heavy boiler plate, rests upon a concave basin of concrete filled with water. This generator is lined with fire-brick and properly chambered, according to the peculiar requirements of the process. There are no grates, neither is there a smokestack. At the top there is an automatic feeder, by which the gas-producing fuel is fed to the generator. In the beginning the lower portion of the generator is filled with cinders and ashes up to the fire zone. Combustible material is introduced to start the fire, and then the automatic feeder is set to work. Soon there is an incandescent mass. The smoke and tarry vapors are reintroduced by a system of pipes and converted into gas, so that there is absolutely no waste. The draft is supplied through steam pipes, the purified gas is sent to the holder and the ashes are taken with a shovel from the water at the bottom of the generator.

When it is considered that in some bituminous coals there are 170 pounds of tar to the ton, and that there are 18,000 heat units in every pound of tar, whereas there are only 12,000 heat units in a pound of coal, the value of a process that converts all of the elements into gas is easily seen. By this process more than 80 per cent. of the fuel is converted into gas, and the value of the gas as the producer of energy has been demonstrated to be this: It will yield one horse-power hour per pound of coal, whereas under a boiler it requires, under the most favorable circumstances, from four to ten pounds of coal per horse-power hour. It has also been demonstrated that with coal at \$3 per ton gas can be sent to the engine by this process at not to exceed two and one-half cents per 1000 cubic feet, which is materially cheaper than natural gas at 10 cents per 1000 cubic feet.

The test of the Texas lignite was highly satisfactory. It at once yielded an excellent quality of power gas, though it must be remembered that lignite carries only about 7500 heat units to the pound, about two-thirds of the units ordinarily found in bituminous coal. All during the test the lignite gas furnished power for a large gas engine in the Berry Foundry, which adjoins the experiment station of the International Gas Power Co., and also supplied all the fuel for their core ovens. This gas is suitable for power and fuel, and the smelting of zinc and the softer metals.

No claim is made by the International Gas Power Co. that its gas is an illuminant. It is merely a fuel and power gas, peculiarly adapted for industrial purposes because of its cheapness and because it can either be transported through pipes for great distances from a plant without loss by condensation or converted into electrical energy to be transmitted by wire for long distances at one astonishingly low cost. What applies to the lignite beds of Texas applies likewise to any section of this country that produces bituminous coal. Nor does it matter how refractory that coal is, for the worst kinds have been submitted to the International Gas Power Co.'s process and there has been no variation in the results.

The Commercial Club of Winnsboro, S. C., has elected Messrs. J. M. Jennings, president; S. C. Gwaltney, first vice-president; John F. Davis, second vice-president, and J. F. Fooshe, C. F. Elliott, L. E. Owens, K. R. McMaster, A. B. Cathcart,

J. F. Davis, J. D. McMeekin, W. M. Quantlebaum, J. D. Fulp and T. H. Ketchin, board of directors.

#### STRENGTHENING WATER INTERESTS.

Foreign and Domestic Links at New Orleans.

[Special Cor. Manufacturers' Record.]  
New Orleans, La., April 21.

Richard Clarke Wilson, president of the Neptune Navigation Co., which will very shortly inaugurate a new steamship service between New Orleans and the Mexican coast, has returned to New Orleans, after having visited a number of big towns in the Mississippi valley with a view to interesting merchants and manufacturers in the project. The company has already secured an option on the steamship Anselm, which is now operated by the United Fruit Co. between New Orleans and Central American ports, and it is regarded as highly probable that this steamer will be the first vessel put into the trade. The Neptune Navigation Co. will operate in conjunction with the National Railways of Mexico and in competition with the Mexican-American Steamship Line. According to the statements of New Orleans men who are interested in the project, the company already has a guarantee of a good deal of freight both ways, and it will handle a large amount of business for the National Railways.

The most interesting and important feature of the new steamship line, however, will be its connection with the new barge line that is to be operated down the Mississippi from St. Louis. The New Orleans harbor will furnish the connecting link for the continuous service that will be provided between St. Louis and the upper Mississippi and the Mexican coast. Terminals will be secured here, where freight for export to Mexico may be transferred from the barge line carriers to the vessels of the Neptune Navigation Co. It was said several days ago that the service between St. Louis and New Orleans, which will be operated by the St. Louis, Tennessee River & New Orleans Transportation Co., would be inaugurated in about 30 days. That this line will receive a great amount of freight from the upper Mississippi is definitely established, especially since wealthy merchants and manufacturers of St. Louis and other towns along there are behind the project. The barge line and new Mexican coast service are closely identified with each other, and it is anticipated that it will not be very long before a big trade is built up between St. Louis and the Mexican coast, New Orleans figuring as the terminus of the barge line and the steamship company.

Plans are now being perfected for a new steamboat line between New Orleans points on Red river, the idea being to revive the old Red river trade, which has to a large extent been neglected since the old Red River Line went out of business several years ago. Capt. Charles Drown, formerly head of the Red River Line, is now endeavoring to interest Shreveport plants and New Orleans business men in a project for a \$60,000 company which will operate several boats in the trade. It is proposed to build three boats, two with 2000 bales capacity each and one that will carry 1000 bales. All will be built for light-draft navigation. Two of the boats will be operated between New Orleans and Shreveport, and the other north of Shreveport.

The Kentucky State Board of Equalization shows that the assessed value of property for 1907 for Jefferson county and the city of Louisville is \$158,753,997. This is an increase over 1906 of \$13,989,579 on the city lots and \$113,727 on the farm lands of the county.

## Great Possibilities in Texas Lignites as Fuel.

[Special Correspondence Manufacturers' Record.]

St. Joseph, Mo., April 18.

One of the great agencies that combine to make a manufacturing center is power. The others are natural resources, productive soil and easy facilities for transportation. The section that has either natural power or cheap fuel to offer is fortunate; equally so is the section that offers minerals or timber, or the fruits of agriculture. But the section that offers all of these at once is to be deemed a favorite of nature, and only awaits the application of man's genius to develop its possibilities.

Texas, that vast empire whose varied richness has already astonished the world, has among its endowments a tremendous area of lignite-bearing ground. Lignite has always been considered the ugly duckling of the fuel family, because of its low value as a heat producer and its consequent uselessness in the production of warmth or power. Now, however, that a method of employing it successfully and cheaply has been developed, the most tremendous possibilities appear for the Lone Star State, for here we are to have in combination all the agencies of industry indicated in the foregoing paragraph.

This conclusion is based upon the result of a series of tests made at the plant of the International Gas Power Co. in St. Joseph, Mo., upon a carload of lignite sent for that purpose by the Commercial Club of Dallas. The lignite is the same as that furnished for Government tests at St. Louis from Hoyt, Texas. The application of lignite to the production of power is not to be through the fiery furnace, for the generation of steam, but in the form of

power gas, through a smokeless, smoldering process peculiar to the apparatus of the International Gas Power Co. It was demonstrated here that a ton of lignite will yield 90,000 cubic feet of gas at a nominal cost of production. Upon the basis of this test it is estimated that it will not cost to exceed one cent for 1000 cubic feet to deliver lignite gas to the engine. The tests were made by Mr. Charles A. Harvey, chief engineer of the International Gas Power Co., and Mr. H. B. MacFarland, professor of applied mechanics at Armour Institute, Chicago.

The lignite belt of Texas extends from the Red river on the north to Laredo on the south, and embraces the entire north-eastern part of the State, including the counties of Lamar, Red River, Bowie, Delta, Titus, Cass, Rains, Wood, Upshur, Marion, Kaufman, Vanzandt, Smith, Gregg, Harrison, Navarro, Henderson, Cherokee, Rush, Panola, Limestone, Freestone, Anderson, Nacogdoches, Shelby, Leon, Houston, Trinity, Angelina, Augustine, Sabine, Robertson and Madison; thence it courses to the southwest, embracing the counties of Milan, Brazos, Grimes, Walker, Burleson, Lee, Washington, Bastrop, Fayette, Caldwell, Gonzales, Lavas, Wilson, Karnes, DeWitt, Atascosa, McMullen, Liveoak, Duvall and Webb; in all 54 counties, and an area of greater dimensions than that of a number of pretentious States in the Union. The possibilities are practically incalculable. This country's water-power is as nothing by comparison with the gas power contained in the Texas lignite beds. The application of this power to the various designs of utility required to convert the products of Texas into marketable form would work a

\*From a paper before the National Association of Cotton Manufacturers.

# CURRENT EVENTS AS VIEWED BY OTHERS

## SUBSTANTIAL REASONS FOR OPTIMISM.

[Wall Street Journal.]

If the polling of opinions made by the MANUFACTURERS' RECORD be sufficiently representative, then the productive business of the country is on a solid footing and bids fair to make this one of the best business years in the country's history.

Among the signs of the times which make people hopeful in the reports which have thus been gathered are mentioned the unusually high purchasing power of the people, the general employment of labor and manufacturing establishments, the enormous increase in savings bank deposits, the greater number of engineering projects, extensive municipal improvements, the demand for improved appliances in transportation, in building operations and in manufacturing, and finally, the good agricultural outlook.

These things tell only in one direction. On the other side of the account is to be placed the view that higher wages have not resulted in increased production: that the materials of manufacture are still assembled with considerable difficulty; that some industries suffer from the shortage of loanable funds, and that the lateness of the season may reduce early shipments of products from the trucking sections of the country. Finally, a large body of legislation, part of which has already gone into effect, and more of which must be in operation by midsummer, is looked upon as an adverse factor the full weight of which cannot be determined. On the whole, however, fears of the unfavorable effect of legislation are never fully realized, and the weight of judgment in this count is decidedly in favor of a continuance of prosperity in practically all the main lines of industry.

[Reading (Pa.) Telegram.]

The railway men who are admonishing the people to beware or there will be a panic, and who are taking great pains to announce in the most showy manner that they have put off making improvements until they can see whether their properties are to be "confiscated" or not, are laying fuses to their own injury and possible destruction.

A canvass of representative large industries of the United States made by the MANUFACTURERS' RECORD shows that there is absolutely no real foundation for a hard-times scare. In all sections crops have been large and the crop outlook is better than in years. Not in a generation has every great staple been in so strong a position as at present. Mill factories and other workshops report orders far in excess of stock on hand, and the fact that in six years alone the farm values of the country have increased to an extent equal to half the total valuation of all our railroads ought to prove that the foundations of our welfare are not collapsing.

If there should come a general and serious contraction in business it would surely be attributed by the masses of the people to wilful manufacture by the so-called "money power." Signs of concern among the railway financiers are so plain and the stage settings of their comedy of doleful prophecy are so clumsily obscured that no reading or thinking American is deceived. If a panic should come it will be due to a causeless scare, a cry of "wolf" when there is no wolf, and there is no reason to suppose that when it shall have subsided the last estate of those responsible for its inception will be better than the first.

It doesn't pay to flirt with trouble when you can't be sure how far it will spread.

[Baltimore News.]

The current issue of the MANUFACTURERS' RECORD makes an exhibit of abounding industrial activity that should act as a relief for anxieties excited by contemplation of Wall Street troubles. Uneasiness as regards the value of railroad shares is not surprising, in view of the revelations of the abuses to which trusteeship in railroad property is exposed and the tendency of Legislatures to act with more zeal than discretion, but the material basis of prosperity is unimpaired. Production is going on at an amazing rate, and yet it lags behind demand. Wall Street may be sick, but there never was a time when the industries of the nation were in a state of greater or more healthy activity.

The MANUFACTURERS' RECORD has obtained telegraphic reports from manufacturers and producers in every line, and they all tell a tale of great demand and prosperous activity. Speaking of conditions in the Lehigh valley, a large business concern says: "Every quarry, mine, furnace and mill is being pushed to the limit of capacity, their output being absorbed by the unfilled orders awaiting their turn of shipment." Like reports come from every quarter. A Chicago contracting firm says that the outlook is better than at any previous time in the last 20 years. Seven of the large pages of the MANUFACTURERS' RECORD are taken up with telegrams of the same general tenor. Everywhere the people of the United States are busy creating wealth. Farm, shop and mill are turning out products to their utmost capacity to meet existing demand, and are unable to keep up with it. The iron trade, which has long ranked as an industrial barometer, is exceptionally active, with a great accumulation of orders to work off.

The weak spot in the situation is the uncertainty as to the status of railroad investments; but in comparison with the general business of the country, that is a small spot. It needs treatment, and will receive treatment. The evils that have been disclosed will bring out their cure. But the general situation is such as to afford solid ground for optimism. Money is piling up in the savings banks, if not in Wall Street, and it will be, on the whole, an advantage if lending on collateral security shall experience a check. There has been too great an inclination in that way in the past. The Wall Street troubles are due to particular causes which have not affected the basis of national prosperity—the industry and enterprise of the American people.

## SCARCITY OF OPERATIVES.

[Textile Manufacturers' Journal.]

Perhaps the most potent cause for the present condition of the cotton-goods market has been the unusual scarcity of labor both North and South. During the last few months this has not been in such evidence as previously, but a great many authorities are viewing with more or less alarm the probable increased scarcity to take place as the summer months draw near. Already operatives are said to be becoming restless, and in many instances it has been necessary to close parts of plants because of the inability to secure a sufficient number of laborers to keep them in operation. The fact that there has been a curtailment of production during the last year has been most apparent

in the cotton-goods industry, but from all appearances it would seem as though this factor was to be exaggerated as the months pass. Perhaps Southern manufacturers have been more greatly handicapped in this respect than their New England competitors, but both are equally agitated to-day over the situation and the probable outcome of it.

Especially in the South, however, there seems to be a feeling that, in view of the increased amount paid the employe, the difficulty of retaining him as a constant operative is increasing. The shiftlessness of the ordinary mill operative, especially in the South, is a well-known fact, and as he is interested only, according to all evidence, in securing a mere living—although happily there are exceptions to this condition—the very fact that he is securing more money than has been his wont in the past will have a tendency to increase the number of days on which he desires a vacation. Then, too, the call of the field and other industrial enterprises for his labor are of such a character as to make it probable that his operations in the mill are to be curtailed. Undoubtedly he is receiving today a larger wage than in a good many years, and this fact is influencing him to give less of his time than when he secured only a mere pittance for his work. It is naturally impossible to calculate exactly the amount of curtailment which has been due to the absence of mill operatives. At the same time it is confidently stated that anywhere from 25 to 30 per cent. is a conservative estimate in looms, or of complementary machinery, that it has been impossible to run because of the inability to secure operatives for them. That this proportion will be increased this summer many believe, and if so the outcome of the situation in the cotton-goods field is largely a matter of speculation, but one of considerable import as far as buyers are concerned. That it would seem to offset any possibility of decline, due to conservatism, is natural, and yet it remains to be seen whether the buyer will appreciate the possibilities of the situation and will conduct himself accordingly. It has always been the feeling that goods could be obtained when wanted, and although the buyer has had some rather costly experiences, basing his action on this opinion, during the last year or two, yet the mere fact that he has eventually obtained what he wanted has not led to any material change in his method of operations. Of course, buyers have bought ahead to a large extent, but it has been principally because of the need for goods, and not on speculation, and therefore it remains a question whether, because of the likelihood of a scarcity of product induced by inability to operate a full complement of machinery, the ordinary buyer will increase his takings simply because he feels that he is likely to suffer if he does not pursue this course. At any rate, the future is interesting, and the outcome will be awaited with interest not only by the seller, but by the buyer as well.

## MAKING AUTOMOBILING SANE.

[Springfield (Mass.) Republican.]

This whole matter of the danger in motoring sifts down to a question of speed. Speed appears to be a mania among chauffeurs, and probably always will be with the thoughtless. But this season automobilists must think of others more than they have in the past, unless we are to have some shocking accidents here. There will be many hundred more machines on the

roads this summer than there were last year. This means an increased chance of collision, as well as a much greater danger to pedestrians. The man at the wheel has got to think of others, even though he may say he does not care what others think of him. Automobiling has come to stay—it is a pleasant pastime—but let us all unite in making it a sane one as well.

## NATION OF TELEPHONE USERS.

[Philadelphia (Pa.) Press.]

There are three great methods of intercommunication at a distance. They are the mail, the telegraph and the telephone. The last is the newest and it is the one which has recently been making the finest progress.

There is in Philadelphia a telephone for every 13 persons in the city, and the number of instruments increases more rapidly than does the population. This is true of all American cities. In London an average of 50 persons have one telephone; in Paris, 42; Berlin, 22, and Vienna, 60.

While the mail business of the largest American towns is growing at the rate of about 7 per cent. a year, and the telegraph business certainly no more than that, the telephone is adding perhaps 25 per cent. annually to its service.

The telephone is no longer the convenience of only the towns, for wires are everywhere throughout the rural communities. No invention of modern times has robbed the country of its isolation so thoroughly as the telephone. Lucky for Paul Revere that he lived more than a century ago, for his method of carrying an immortal message would be obsolete in the remotest part of Pike county.

## LANCASHIRE COTTON MILLS.

[Fall River (Mass.) Daily Herald.]

Reports that have been forthcoming from time to time about the activity in mill building in Lancashire during the past two years have aroused some interest on this side of the water to know where the money was coming from to build so many factories. English capital is no less conservative than American capital, and the apparent ease with which new ventures were financed in a comparatively small district excited some wonder, because people are being constantly advised not to put all their eggs in one basket. The London Daily Mail, in describing the boom in Lancashire mill building, throws some light on the situation. It says that nearly 100 new cotton-manufacturing concerns have been organized since the movement began. These are not capitalized at figures of the size that are customary in this vicinity, to be sure, but so many new undertakings might readily be expected to make an impression upon the money market. The Mail, however, says that the effect has hardly been felt, and explains this by the somewhat surprising statement that eight-tenths of the capital at least has been supplied by the operatives themselves. It is pointed out that the difference in earnings in an old and a new mill is so considerable that places in new factories are eagerly sought. It is no uncommon thing, but rather the expected thing, that an operative shall subscribe to the shares of the new concern before he can be sure of getting a place in it. It appears that where a spinner could make £2 a week in an old mill he can earn from £3 to £3 10s. a week in a new mill and at the same time pay his "piecers," as assistants, higher wages. In a new mill he is in charge of a spinning mule of the latest design, producing from 200 to 250 pounds more yarn per



week. Naturally, therefore, he is keen to transfer to a new establishment. To do this, however, he must be ready to invest in the enterprise or to advance a loan. In many of the new mills men have had to lend £200 at interest before they could secure employment. Possession of capital being the lever of advancement, he has become by habit thrifty. Practically every cotton operative, man or woman, has "an old stocking." The effect of such a practice must be to secure a deeper personal interest on the part of the operatives in the welfare of the company and to make it less likely that labor disturbances will interrupt production on any but the most serious causes. The contrast between such a practice in Lancashire and conditions in New England is striking. Just at present, in view of the scarcity of mill hands, heads of families who seek employment in new factories are not asked to loan money, but are invited to accept a loan, if such is needed to move them from one place to another, and those who can furnish several workers along with themselves are certain to find conditions in the factory made about as nearly satisfactory to them as circumstances will warrant.

#### TEXAS DIVERSIFYING.

[San Antonio Express.]

For years the newspapers urged the farmers to diversify their crops, to plant less cotton and more hogs, to keep their barns and smokehouse at home instead of relying upon the commission merchant and the corner grocery to provide them with the feed and provisions upon which to make a crop. They have begun to learn how to live at home and board at the same place, and to have meat and produce to sell to consumers in Texas and out of Texas. They now have cash money coming in all spring and summer, as well as during the fall and winter months while their cotton is being marketed.

Here is Seguin shipping hogs to distant markets that would be prize winners at almost any county fair. Here is Taylor shipping turkeys to New York and the East by the carload, and Yoakum jumped into prominence as a market for poultry and eggs that attracts the attention of the outside world. Corpus Christi is known from the Rio Grande to the Penobscot for her beautiful cabbage sent out of the State by thousands of carloads, and Laredo famous for her shipments of Bermuda onions. Brownsville will soon be known from one end of the country to the other for her early vegetables, melons, cantaloupes and citrus fruits, just as Jacksonville, Tyler, Rusk and other East Texas cities are for their enormous productions of Elberta peaches, strawberries, tomatoes and other things.

#### AMERICA WILL PROFIT.

[Springfield (Ill.) News.]

The notable wheat shortage in Russia may prove of enormous benefit to Uncle Sam, farmer. The Russian peasant is, according to the Crop Reporter, face to face with one of the worst famines on earth. Official figures place the entire crop of winter wheat in Russia at 238,000,000 bushels; spring wheat, 299,000,000, while the rye crop is 633,000,000 bushels. The wheat crop is 100,000,000 bushels short of 1905, and 130,000,000 short of that of 1904. Russia's wheat crop in 1906 is the smallest since 1901.

The shortage in rye is still more alarming. The crop of 1905 was 280,000,000 short of that of 1904. The crop for 1906 is 74,000,000 short of 1905, or 354,000,000 bushels short of 1904. It is 100,000,000 bushels below the 1901 crop, and even smaller than the famine crop of 1897.

The United States raised in 1905 a total of 2,707,993,540 bushels of corn, 892,979,489 of wheat, 953,216,197 of oats, 136,

651,020 of barley, 28,485,952 of rye and 14,585,082 of buckwheat. The cereal crops of 1906 yielded the hugest total in American history. We are thus in a position not alone to help out Russia, but to help those countries dependent on Russian cereals. We may expect the price of breadstuffs to keep well in front. Uncle Sam, farmer, is always ready to turn an honest penny.

#### A CREDITABLE DISTINCTION.

[Montgomery (Ala.) Advertiser.]

It is a somewhat singular as well as significant fact that the five civilized Indian tribes which can fairly lay claim to such a designation, and who have deserved it by the great advance they have made in education, morals, intelligence and all else that goes to make good citizenship, are distinctly Southern Indians. We may go further and claim that all of them to a great degree may justly be called Alabamians, for all of them once resided, partially or entirely, in what is now Alabama.

At the outset of our historical knowledge of the Creeks, Choctaws, Cherokees, Chickasaws and Seminoles they were in whole or in part residents of this region. The Creeks occupied much of the central regions of the present State, the Choctaws were in West Alabama and Mississippi, the Cherokees were in Northeast Alabama, Northwest Georgia and part of Tennessee, the Chickasaws were in Northwest Alabama and adjoining portions of Mississippi, while many of the original Seminoles were at one time residents of Southern Alabama.

Thus it will be seen that, whatever the cause may be, the Indians of this part of the country are the ones who have made the greatest strides and shown the most material advance in all the arts of civilization and good citizenship. Whether this is attributable to their origin, their environments or their opportunities or to all of them may be a debatable question, but of the facts there can be no doubt. In short, the Indians who once occupied this region are the ones who are known as the Five Civilized Tribes of the United States. They have cause to be proud of the distinction.

#### BETTER BILLS OF LADING.

[Charlotte (N. C.) Observer.]

The prospect of a satisfactory form of bill of lading must be gratifying to bankers and business men generally. "Business will be greatly facilitated throughout the country by changes which the railroads are planning to make in the proposed uniform bill which the shippers have been trying for several years to induce them to issue," says a news item in the New York Journal of Commerce. "If an agreement can be reached with the shippers, the railroads will throw sufficient safeguards around the bill of lading so that the banks throughout the country will accept it without question. It is the purpose of the railroads, in fact, to make bills of lading the safest possible medium of exchange, so that the shipper will be in about the same position in a business sense as he would be if he had a certified check for the value of his shipment. At present the banks loan money on bills of lading, and millions of dollars are in circulation backed by that security, despite the fact that the railroads have in the past tried to make them non-negotiable. The banks complain that the risk is too great and that the safeguards are not sufficient." It is further stated that the meeting of the special committee of the American Bankers' Association at Hot Springs, Ark., May 2 may be the occasion of the railroads' and shippers' committees coming together. All this is good news for the business world at large, but for no portion of it more than the bankers and cotton men of the South.

#### EXPENDITURES BY RAILROADS.

[President T. M. Emerson of the Atlantic Coast Line.]

The public is demanding increased facilities, increased and better equipment, improved stations and more of them, and the railroads have been and are earnestly trying to provide for all these, and as a matter of interest to you I will quote statistics showing the action of the Atlantic Coast Line Railroad Co. in this direction.

During the past three and a half years it has purchased new equipment (all of which has not been received, but is contracted for delivery during this year) to the value of \$15,805,479.63, and has spent in additions and betterments, for yards, terminals, new stations, heavier rail, signal towers and plants, double-tracking, etc., \$6,169,759.48 (which amount does not include \$2,000,000 additional authorized, but not expended up to the present time, owing to scarcity of material and inability to secure efficient labor).

To bring it a little closer home, I would state that of these amounts there has been spent in and for the benefit of the properties in North Carolina, for betterments and equipment, over \$5,000,000, and of the unexpended balance, \$250,000 is to be expended in this State. This, remember, is in addition to the increased cost of operation.

On July 1, 1902, the road owned 13,157 freight cars of all classes; on March 1, 1907, 20,774, and contracts have been made for delivery this year of 5269, making a total of 26,043, or practically 100 per cent. increase. Locomotives owned on July 1, 1902, 435; on March 1, 1907, 606; contracted for delivery during this year, 80; total, 686; an increase of nearly 60 per cent. in number of engines, representing an increase in tractive power of over 100 per cent.

As illustrating the increase in cost of material, etc., would state that about three years ago flat cars cost \$375 to \$400, now they cost from \$750 to \$800; box cars from \$500 to \$550, now cost \$900 to \$1000; passenger coaches cost from \$4000 to \$5000, now cost \$8000; locomotives that cost from \$9000 to \$10,000 now cost from \$13,500 to \$14,500. Every item we buy has increased within the same period from at least 15 to 40 per cent.

#### GEORGIA'S MINERAL WEALTH.

[Augusta (Ga.) Chronicle.]

It's almost too soon to begin declaiming about it, but the announcement from Jefferson county that the borings there have demonstrated almost conclusively the presence of oil in paying quantities must be received with joy by every loyal Georgian. Here is an enterprise that has been fostered exclusively by Georgia capital, and that it bids fair to be remunerative must be pleasing to everyone.

Reports declare that oil has already been struck, though in small quantity, at a comparatively shallow depth and far above the stratum at which geologists declare the real oil sand is to be found. Natural gas has already made itself felt, and there is strong evidence in the minds of those who should know that the attainment of a great oil supply is but a matter of further boring.

Truly this is a wonderful State in which we live. The hand of Providence has been most bountiful in lavishing nature's best gifts upon it, for almost every year now we hear of some discovery or development of a hitherto hidden source of wealth that adds greatly to the importance of the State. We are assured by metallurgists that there are many more minerals in Georgia's bosom that but wait to be dug.

Only recently we were astounded by the announcement that almost within reach of Augusta there were practically

inexhaustible deposits of kaolin and pottery clay. Later there followed the news that feldspar had been located in the northern part of the State, making complete the list of materials for manufacturing all high grades of pottery and crockery. Paint ores and earths of high quality have been mined near Augusta for years, and we are assured that lime and iron are to be found in Georgia in almost fabulous quantities. The list grows almost monthly. Give us now a few great coal beds and Georgia will be blessed beyond any State in the Union.

It is almost incredible that this mineral wealth should have lain undeveloped all these years, but such seems to be the fact. Now that the immigration movement seems to be focussing into something definite, it is to be expected still further increases in the available wealth will be reported. If the influx of new blood keeps pace with the development of hitherto hidden resources, Georgia is going to the front by leaps and bounds.

#### THE ENGINEERING AGE.

[Troy (N. Y.) Times.]

In view of the extent to which the mind of the world is being directed to utilitarian plans, the suggestion that another name for the age could be appropriately called into use is in order. This is an era of engineering. The fact is made apparent by a glance over the field in our own country as well as abroad. But America leads in this, as in so many other matters. "Never before," says a writer on this subject, "has the world seen so many colossal engineering projects under way as are now going forward within the boundaries of the United States." One thinks at once, of course, of the Panama Canal, which, though outside the actual limits of this country, is practically in American territory, since the United States has control of the canal zone. The great irrigation works of the West are also brought to mind. These undertakings help to indicate that this is an engineering age, but they fall very short of making up the sum total of engineering activity.

A record which has been compiled places the estimated cost of large engineering undertakings now in progress in New York city alone at \$600,000,000. This does not mean the private building construction constantly going on, in all of which, owing to modern methods, engineering plays a more or less important part, but includes the improvement of transportation terminal facilities with the tunnels and other approaches, the bridges which the city is constructing and the subways projected or partly built. All these works are being prosecuted in the interest of the public, and will add enormously to the conveniences demanded by metropolitan growth. Outside of these there are innumerable works, among them the proposed completion of a new water system at an estimated cost of \$161,000,000. The State also is doing its part as a promoter of engineering. The \$101,000,000 barge canal and the road improvement going on, with the impetus to be given by the \$50,000,000 voted for that purpose, will afford work to untold numbers of engineers.

Not less than a billion dollars will be required to complete all the engineering work now authorized and in sight, and this does not include the \$85,000,000 which Congress set aside for waterway and harbor improvements, the planning of which, of course, will fall mainly to army officers, though civilian engineers will also be called into requisition. Nor is the list made to cover a host of corporate and individual operations, making a mighty aggregate of engineering work, to which the best talent of the profession will be called. It is a source of keenest satisfaction to loyal Trojans that so many graduates of the

famous Rensselaer Polytechnic Institute have active and honorable part in these wonderful developments, and as the achievements of the age of engineering become greater the training received in Troy is certain to have still more notable effect.

#### OUR GROWING PROBLEM.

[Pittsburg (Pa.) Chronicle-Telegraph.]

A statement just issued by the Bureau of Immigration of the National Department of Commerce and Labor shows that immigration to the United States from all countries for the six months ended March last aggregated 539,137 persons, an increase of 75,821 over a like period in 1906. Of this inflow, the number from Russia was 103,364, an increase of 21,631. Whatever may be thought of the sociological influence of so large a number of persons, alien in speech and thoughts and habits, it is undeniable that they come in response to an insistent demand for labor. While this demand lasts, and while our immigration laws are what they are this stream will continue to flow in. With it there come problems which will have to be met. This vast army which reaches our shores must be so dealt with that the possibilities for harm are minimized and national menace transformed into national benefit. There is but one way to accomplish such transformation, and that is by pursuing a course calculated to benefit the individual immigrant. In that way only can the mass be converted into proper material for assimilation. It is a large task in the aggregate, and can be approached effectively only in detail. Agencies to this end are at work, but they do not grow as rapidly as immigration. The promise of the six months ended with March is that the immigration of the year will be the greatest on record. The quality of American life will be debased unless the problem is more vigorously attacked than it has been.

#### KENTUCKY TOBACCO.

[Louisville (Ky.) Courier-Journal.]

A recent bulletin from the Kentucky Agricultural Station gives some valuable data in regard to the Kentucky tobacco crop. Two varieties are raised in the State, each having an area especially adapted for its production. Western Kentucky and a considerable district centering around Clarksville, Tenn., comprising the dark tobacco district, produce an article which not only supplies a ready market at home, but also finds its way into the German, French, Italian and other European markets. Central Kentucky, comprising the lower silurian or bluegrass formation, is the area known as the White Burley district, in which quality of soil alone that variety of tobacco is successfully grown, and of which but little is produced, save in Kentucky.

The largest consumption of both White Burley and dark types is in the manufacture of plug tobacco, it being used as wrapper and filler, depending to some extent on the color, texture and size of the leaf. The quality of tobacco used for plug alone varies considerably, as it is graded in color from light yellow to mahogany and brown in the Burley tobaccos, and from the pied-bald to a dark red and dark brown, including the heavy Green river filler in the dark tobacco district. Large quantities of Kentucky tobacco of both varieties are also used in the manufacture of smoking tobacco, cigars and snuff, while the red and brown types from both districts are used exclusively for plug wrapper and filler. The United States consumes a considerable quantity in the manufacture of plug tobacco, smoking tobacco, low-grade tobacco and snuff. Great Britain imports both the heavy and light tobacco, principally of plug tobacco, of which the seamen of the British navy consume large quantities. The consumption of the same variety

is also very great in France, while Italy imports chiefly the dark brown, heavy type of Western Kentucky and Clarksville, Tenn., using it in the manufacture of cigars, smoking tobacco and snuff. Spain imports common and medium grades from Western Kentucky, using the best quality for cigar filler and the inferior for smoking tobacco and snuff. Germany is the next biggest buyer of Kentucky tobacco after Great Britain, using the dark variety, while several other countries of Europe and Africa also import our tobacco in limited quantities.

#### OPEN-HEARTH STEEL TO PASS BESSEMER.

[Iron Age.]

Each year brings a fresh surprise in the returns for the production of open-hearth steel in the United States. This week the statistics for 1906 are published by the American Iron and Steel Association, and the actual result surpasses preliminary estimates based upon the production of basic pig-iron and upon the open-hearth steel ingot production of the United States Steel Corporation as given in its annual report. In summary the record of last year in steel production in the United States can now be made up as follows, in gross tons:

Open-hearth ingots and castings.....	10,970,998
Bessemer ingots and castings.....	12,275,253
Crucible and all other, estimated.....	119,000
Total steel ingots and castings, approximately.....	23,365,000
Increase open hearth over 1905 (22.2 per cent.).....	1,999,622
Increase Bessemer over 1905 (12.2 per cent.).....	1,333,378

As has been repeatedly pointed out, the basic open-hearth furnace is to be credited with almost all the advance made in open-hearth steel in recent years. Last year basic open-hearth steel contributed 1,833,657 tons of the 1,999,622 tons of gain in open-hearth steel over the record of 1905. Of the modest increase of 165,765 tons in acid open-hearth steel, castings are to be credited with 87,022 tons, or more than 50 per cent. We need not go far to find reason for the stride taken by basic steel last year. Steel cars, locomotives, lake vessels, bridges and buildings, and the increased bar requirements of a variety of interests represent the bulk of it. The increase in open-hearth steel rails was relatively small—probably not more than 50,000 tons beyond the total of 145,883 tons in 1905, since the American Iron and Steel Association puts the total of open-hearth rails, all rails made from purchased blooms and all rails rerolled in 1905 at about 300,000 tons.

The completion of the statistics for 1906, apart from the relatively small amount of crucible steel, makes it possible to compare the production of the United States Steel Corporation with that for the entire country. Of the total of 10,970,998 gross tons of open-hearth steel made last year, the Steel Corporation contributed 5,438,494 tons, or 49.5 per cent., a loss of practically two points from its percentage of 51.4 in 1905. In Bessemer steel the corporation's percentage also fell off, being 65.7 for 1906, against 67.4 for 1905. The decline in the corporation's proportion of the total steel output of the country, accentuated last year, is shown strikingly in the following figures:

Steel Corporation's Percentage of Bessemer and Open-Hearth Ingots and Castings.		
	Percentage of Bessemer.	Percentage of open hearth.
1902.....	73.9	52.4
1903.....	72	51
1904.....	69	50.4
1905.....	67.4	51.4
1906.....	65.7	49.5

It will be seen that from producing practically three-fourths of the Bessemer steel of the country in 1902 the Steel Corporation last year produced less than two-thirds. Moreover, the net falling off in its percentage of the open-hearth total in five years is three points, notwithstanding

the large additions to its open-hearth capacity and its absorption of the three important open-hearth plants at Sharon, Donora and Clairton. The Gary enterprise is coming forward none too soon to arrest the diminishing movement.

While the figures have been marshaled repeatedly, showing how open-hearth steel has been steadily gaining upon Bessemer, the fact that 1906 is probably the last of the years in which open-hearth steel falls below 50 per cent. of the total of Bessemer and open hearth—if not that, then certainly the last but one—warrants the presentation again of some figures graphically showing the relation between the two in the years of our remarkable development in steel. Going back to 1890, the figures are given for the next two five-year periods and then by years. From being one-eighth of the total of Bessemer and open hearth in 1890 the latter grew to one-fifth in the next five years, and in another five years to a third. Now it is within a step of parity with Bessemer. The figures are in gross tons:

Production of Bessemer and Open-Hearth Steel Ingots and Castings in the United States.

	Bessemer.	Open hearth.	Per cent.
1890.....	3,688,871	513,232	12.2
1895.....	4,909,128	1,137,182	19
1900.....	6,684,770	3,398,135	33.7
1901.....	8,713,302	4,656,309	34.8
1902.....	9,138,363	5,687,729	38.3
1903.....	8,592,829	5,829,911	40.4
1904.....	7,859,140	5,908,166	43
1905.....	10,941,375	8,971,376	45
1906.....	12,275,253	10,970,998	47.2

It is significant that while the steel production of the United States was reckoned to be about 40 per cent. of the world's total production in 1903—or 14,534,978 tons out of 35,846,000 tons—the great increase in domestic production in 1905 and 1906 has put this country in the position of now contributing nearer one-half than two-fifths of the world's steel. In 1905 the world's steel production was estimated at 43,500,000 gross tons. Last year it was probably not far from 49,000,000 tons, and this country's contribution was about 47.5 per cent. The steel production of the United States doubled between 1900 and 1905, being in round numbers 10,000,000 tons and 20,000,000 tons in these years, respectively. In a single year it has covered one-third of the distance between 20,000,000 tons and 30,000,000 tons, which latter was the mark a well-known steelmaster of the United States set in 1901, the year the Steel Corporation was organized, to be attained by this country by 1910. What was at the time regarded as exuberant optimism is now within reasonable promise of fulfillment, even with fair allowance for the expected recession.

#### EARTHQUAKES AND ERUPTIONS.

[Pittsburg (Pa.) Dispatch.]

Earthquakes of varying intensity, ruinous in Mexico, seem to have passed around the globe at about the latitude of Mexico and the Mediterranean countries. Almost concurrently destructive volcanic eruptions are reported from Chile.

Is there any connection between the two? Some scientific authority says not, and the geographical separation between Mexico and Chile, for example, makes it hard to affirm a relation between the tremors in one country and the eruption in another. But the distance between Mexico and Chile is not greater than that between Mexico and Trans-Caspian Russia. Are we to conclude that the occurrence of these convulsions at wide distances apart is merely a freak of chance, and that each was due to its separate local cause?

The fact is that what the internal forces are which produce earthquakes and active volcanoes is something on which the scientific theory is but a shade better than the popular guess. The best explanation is that which accords with what is known and is consistent in its theoretical postu-

lates. Moreover, if the world ever attains indisputable knowledge of the causes of these destructive workings of an unstable terra firma, it is exceedingly doubtful whether the knowledge will enable it to defend itself against the peril and loss that accompany them.

#### AS TO NICKEL.

[Canadian Manufacturer.]

As is well known, the Sudbury region of Ontario contains a larger percentage of nickel ore than all other known deposits in the world. There are large deposits also in the island of New Caledonia, but the distance from market, the poverty of the ore and the difficulty of mining causes the product to come as a far-behind second as far as production and value is concerned. New Caledonia is a penal settlement belonging to France, and the nickel product is owned and controlled by the French Government, and is used very largely in the manufacture of armor plate for French war vessels. There are also some small known deposits of nickel ore in the United States, from which the supply does not equal the demand for nickel for making the five-cent nickel coin in use in that country, the deficiency being made good from the Sudbury sources. The export of nickel ore and matte in 1906, almost all to the United States, was valued at \$2,166,936. This article went into that country duty free and was refined there, the United States duty on refined nickel being six cents per pound. In these days the armor plate used in all war vessels contains nickel, and in all the armor plates made for and used by the United States navy the nickel is drawn from Canada.

Strange to say, however, no refined nickel was ever produced in Canada. At the Sudbury mines the ore is subjected to processes, by which it is reduced to matte, which contains perhaps about 15 per cent. of nickel, in which condition it is exported, that going to the United States being refined in that country, the process giving employment to large capital and large numbers of skilled and other labor. A portion of this Sudbury nickel matte is exported chiefly to Wales, where other large capital and skilled labor is employed in the refining works there. But beyond the labor involved in raising the ore from the mines and bringing it to the condition of matte, to save transportation charges, Canadian capital and Canadian laws give no occupation whatever in preparing refined nickel for consumption in any industry.

#### FUEL OIL FOR ENGLAND.

[London Petroleum Review.]

During the past few months the great engineering feat which has been accomplished in Central America—we refer to the laying of the pipe line across the Isthmus of Panama—has brought nearer the time when we may look forward to liquid fuel playing a more important part in this country. California has in the past been shut out from the European markets with its fuel oil, and the necessity which has existed for an extension of the demand for the oil of California has from year to year impressed itself upon those directly interested in the production of petroleum more and more. Now, however, a different state of things prevails, and already fuel oil flows in an unbroken stream through the pipe from the Pacific to the Atlantic. We do not want to anticipate events, but our readers will see the significance which attaches to this system of economical transportation, and which brings enormous quantities of liquid fuel from California only a few days' journey from our shores.

For a solution of the liquid-fuel problem we look to Roumania with every degree of



prospective success. Her prolific petroliferous territories are today being developed with a zeal typical of the palmy days of some of the Texas fields, and it is a foregone conclusion that though for the present the necessity has not become urgently manifest, if Roumania's production increases in the proportion it has done during the past year or two the establishment of an extensive export liquid-fuel trade will be inevitable. In this respect England is favorably situated, and it is more than likely that Roumania will soon find its residuals being turned to good account in this country.

In the meantime, we would only say that though liquid fuel has not made that advance in the United Kingdom one could have wished, it is by no means a dead project. True it is that time has passed without any appreciable advance being recorded, but it is also true that the not far distant future has in store such progress of oil fuel in this country that even its most ardent supporters will be pleasantly surprised.

#### NEW ENGLISH COAL FIELD.

[Engineering Record.]

There are few developments of mineral resources now being undertaken which show more clearly the intimate relation between geology and mining than the recent work in what is termed the Southeastern coal field of England, between Dover and Canterbury. While the future of the field is still problematical, and it is by no means certain that the garden land of Kent will be turned into an industrial district like that which has grown up around Liege and Valenciennes since the discovery of coal there in the nineteenth century, still the promise given by the borings already made is considered very encouraging. This discovery comes at a particularly opportune time to quiet the apprehension of a portion of the British public lest the price of fuel will shortly rise by leaps and bounds, owing to the diminution of available supplies. This feeling is the natural result of some of the utterances of eminent scientists, misinterpreted by readers who have not taken the time to examine carefully just what has been said on the subject. While it is true that every dictate of national economy and individual thrift points to the necessity of curtailing waste in mining and burning coal, nevertheless there is no probability that there will be any very marked depletion of British coal supplies for many generations to come.

The development of this new field is largely due to the persistence of Prof. W. Boyd Dawkins and the faith of the late Sir Edward Watkin in the teachings of science. The first geologist to advance the idea that coal could be found under Southeastern England was Godwin-Austen, who read a paper on the subject before the Geological Society of London in 1856. It gives a very interesting example of the exercise of trained scientific imagination to lay bare the secrets of the earth's crust. He explained the origin of the coal measures of South Wales, North Somerset, Belgium and North France, and concluded that there must be coal beds beneath the oolitic and cretaceous rocks of Kent near enough to the surface to be workable. This idea was turned down by the head of the Geological Survey of that date, and it was not until 10 years later that Godwin-Austen was able to secure a hearing again for his theory. This time he found a believer in one of the members of the Coal Commission of 1866-71, and the report of the commission was so favorable to his views that funds were raised for sinking a boring at Netherfield at a point selected by Professor Dawkins. This first boring went down 1905 feet without reaching any coal, but it furnished the information necessary to ascertain where the search

for coal could be conducted with better chances of success. Eleven years went by before anything further was done, but in 1886 a boring was started under Professor Dawkins' direction and with funds raised by Sir Edward Watkin which finally reached coal about 1100 feet below Ordnance Datum and revealed 13 seams of coal in a thickness of about 1173 feet of sandstones and shales. Since that time other borings and shafts have been sunk and are now being driven which reveal enough information about the seams to warrant the hope that the twentieth century will furnish England with another valuable coal field.

#### ANOTHER RACE QUESTION.

[Hartford (Conn.) Times.]

For two years past the owners of cotton mills in New England have not been able to run them to their full capacity because of a dearth of skilled labor. Great efforts have naturally been made to increase the number of workers in the mills, but these efforts have not been very successful. It is female labor that is chiefly lacking, and this is a want that immigration does not supply. The French population of Quebec has not proved numerous enough to supply the need of the millowners, and Ireland no longer sends to this country enough young women to fill the demand for women at the looms in the cotton mills. As a consequence, there are mills in Massachusetts in which the laborers are almost wholly Poles and Armenians. But the Poles are clannish and do not mix readily with the people of other races, and the mill men are forced to see a part of their machinery remain permanently idle, because the laborers to operate it cannot be obtained.

An interesting instance of the manner in which race feeling complicates the situation in the mill towns has just occurred in West Warren, Mass. There the Polish-speaking weavers in two of the Thorndike mills have gone on strike because the managers employed two Syrians to run looms that were idle. Two hundred weavers ceased work and would have attacked the Syrians if the mill managers had not prevented. The strikers held a meeting and resolved to picket the mills in order to prevent other workers from being set at work in their places and to use force, if necessary, to accomplish their purpose. They went further and formulated a demand for the dismissal of the superintendent of the mills and one of his assistants, Dennis O'Leary by name. The superintendent says:

"The only story is that we are trying to run 1000 looms. We have never had weavers enough to run them all at once. Never in the history of these mills has all the machinery been in operation at the same time, and we are in a condition where we want to run it and are making an effort to do so. We have hired some weavers whom we know to be makers of good cloth, not to take the places of the men we now have, but to start up the idle looms. As to their being Syrians, two of them are. The other five weavers are French. When I was on the floor of the mill this morning and talked with the weavers I should judge from appearances that not over one-half of the Polish contingent cared to go out, but did so either out of sympathy or fear."

Hence there is presented a question of race prejudice, and nothing else. With no question of wages involved, and with no discrimination on the part of the managers alleged, it would seem as if the strikers in this case have no good ground for their action, and should be forced to abandon their opposition to the efforts of the millowners to keep their machinery in operation. But the incident serves to accentuate the difficulties with which the attempt to run the textile mills of New England is now surrounded. The lack of an adequate

supply of skilled and competent labor is the greatest obstacle to the industrial growth of this section of the country at the present time.

#### STEEL'S ORE OUTPUT GROWS.

[New York Journal of Commerce.]

The concentration of ore-mining operations in the Lake Superior iron region has been growing year by year ever since the United States Steel Corporation set the example of consolidating important industrial manufacturing plants under one management. This fact is strikingly illustrated by the operations of last season, when, of the 38,500,000 tons of iron ore shipped from the Lake Superior region, over 32,300,000 tons were forwarded by 11 concerns. The Steel Corporation led all other shippers, with 20,400,000 tons, thus demonstrating its prominence in the ore business. The following table shows the outgo of each one of the leading companies for the season:

	Gross tons.
Steel Corporation.....	20,414,818
Pickands-Mather Company.....	2,766,031
Corrigan-McKinney Company.....	2,622,688
Cleveland Mining Co.....	1,786,665
Cambria Steel Co.....	1,310,918
Biwabic Mining Co.....	807,374
Ford Schlessinger.....	620,238
Jones & Laughlin.....	584,223
Republic Iron & Steel.....	498,094
Pewabic Mining Co.....	493,891
Rhodes Mining Co.....	414,629
Total.....	32,328,568

No credit is given in this table for the Steel Corporation's share in the Mahoning, Biwabic or Pewabic mines, nor is the Cleveland Cliffs Iron Co. credited with its proportion of the output of the Lake Superior and Regent groups. Of the 25,585,237 tons of ore shipped from the two Minnesota ranges, the Steel Corporation was awarded 62 per cent. The corporation's extensive mines in Minnesota throughout the whole Lake Superior region enable it to sell something like 1,000,000 tons of ore a year outside of its own consumption. The average price last year for Mesaba Bessemer ore at Lake Erie ports was \$4, and for non-Bessemer \$3.50, but the corporation no doubt netted less than these figures, because of old outstanding contracts at lower quotations.

#### CUBAN DEMAND FOR CEMENT.

[Daily Consular Reports.]

During the fiscal year of 1905-1906, 31,749 barrels of Portland cement were imported through Cienfuegos, 29,389 coming from the United States, 1279 barrels from France, 639 from Germany and 442 from Spain. Concrete is not yet extensively used in the construction of buildings. It is becoming popular, however, in bridge building and in the construction of pavements, sidewalks and sewers. Last year this city contracted for a modern system of water-works and sewers. The \$2,376,157 bid of a New York city contractor was accepted. Something like 50,000 barrels of cement will be required for this contract, and I understand that a commission merchant has already sold for the purpose 15,000 barrels. The present selling price per barrel ranges from \$3.75 to \$4 Spanish gold, worth 91 per cent. at present. Cement comes in wooden packages only. The duty on a barrel of 100 kilograms from the United States, including the cost of the barrel, is 30 cents. The freight rates from New York, New Orleans or Mobile are alike, and range from 48 to 50 cents per barrel.

Manufacturers desiring to introduce a new brand of Portland cement in this market should, first of all, appoint an active local agent who is thoroughly acquainted with the conditions here, then assist him by quoting lowest prices and easiest terms possible. A good agent always deals with reliable firms, and they should not be required to pay for cement before it arrives, and should never be drawn on, as they invariably remit promptly on receipt or ar-

rival of the goods. Names of cement dealers and extensive builders at Cienfuegos are on file at the Bureau of Manufactures.

#### RECLAIMING WASTES.

[Wall Street Journal.]

Andrew Carnegie's compliment to the engineering profession in the donation of the engineers' building in this city, and the laudatory words of President Roosevelt in connection therewith, recall how large a part the engineer has played in opening up to settlement and to commerce the millions of acres which now constitute the United States.

Much has been done, but there remains much more to be accomplished. The latest achievement of the engineer is the reclamation of the arid and semi-arid regions of the United States by irrigation. It is estimated that the territory embraced in the arid regions alone covers 600,000,000 acres, of which about 60,000,000 acres are subject to irrigation. Only 10 per cent., therefore, can be supplied with water. The other 90 per cent. is as yet without redemption for want of streams to supply water.

When these Western irrigation projects were being discussed prior to appropriations by Congress in 1902 there was much objection from certain quarters in the East on the ground that it would injure the Eastern farmer. But now it appears that the East and South are beginning to insist that their turn has come. The older States lying along the Atlantic coast have not overlooked the fact that there is much overflow of swamp land skirting the whole Atlantic and Gulf coasts, whose value is potentially enormous. With the filling in of population there must necessarily come a time when it will be worth while reclaiming these tracts, which by some are placed at 50,000,000 acres.

Assuming that this area were divided into farms of 50 acres each, which is more than the average family of 50 years hence may undertake to cultivate, there would thus be provided room for 1,000,000 farm homes. If we reckon an average of five persons to the family, these domains now under water would provide for 5,000,000 people, to say nothing about the building of cities and towns which must result from the tenantry of these as yet unredeemed tracts.

#### STATE EMPLOYMENT BUREAUS.

[Haverhill (Mass.) Gazette.]

There have been 12,973 men applying at the State Employment Bureau for work and 1403 of them have been placed. There were 6433 places offered, so it would seem to follow that if there were this number of places offered and only 1403 accepted the jobs, there were 4940 who did not want jobs badly enough to take what was offered, but preferred to wait until they got just what they want.—Newburyport News.

That manner of man never finds just what he wants. He helps to make up the corner loafers' club, and always will, whatever the trade conditions. The kind of a job he wants is the one where there isn't any work to do.—Brockton Times.

All of which bears out the argument which the *Gazette* has advanced that the State Employment Bureau is unnecessary, and that the record of its work in Boston has been the chief demonstration of that fact. There may be periods when the State should furnish assistance to its unemployed population, either by creating employment or by aiding in finding such employment for them, but the present is not one of those periods. The State employment office scheme is a grafter's paradise. It furnishes something for nothing, offers the possibility of a job to anyone who will apply, and withal furnishes good jobs for a corps of men whose ambition is to draw a public salary.

## RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### NEW LINE IN LOUISIANA.

#### Natchitoches and Colfax to Be Connected—Railroad in a Rich Region.

Capt. C. H. Teal, second vice-president of the Big Pine Lumber Co., writes from Colfax, La., to the MANUFACTURERS' RECORD concerning the proposed railway from Natchitoches to Colfax, and saying that the line will be about 40 miles long and will be known as the Natchitoches East & West Railroad. The officers are C. H. Teal, president; L. Casparie, vice-president; J. H. Williams, treasurer, and John A. Barlow, secretary. Continuing, Captain Teal writes concerning the country to be developed and the inception of the railroad project as follows:

"Natchitoches, the oldest town in the State, and probably founded about the date of St. Augustine, Fla., stands on several beautiful hills, once overlooking the waters of Red river, but the great flood of 1849 caused the stream to break away from its original channel at Grand Ecore, some four miles above the town, and follow the meandering of several bayous that bore to the east and north, coming back to its original bed again at the place where Colfax now stands, thus making an island 15 miles in width, and by river some 60 miles long. This island is as rich as the valley of the Nile, often making one and a half bales of cotton per acre, fine crops of corn and alfalfa, to say nothing of the berries and fruits that grow well with the least care. It is owned principally by big land owners, and each bank of the river is a cultivated plantation on both sides for its entire length. This old river since 1849 has been known locally as Cane river. Its enviroing soil is a sandy loam, and is free from levees, being entirely above overflow. As soon as the National Immigration Bureau, through Mr. Straus, decided that a State could pay the passage of certain kinds of immigrants a majority of these plantation owners, with some of the best business men of Natchitoches, including representatives from both banks, made up their minds to develop these lands by building a railroad, that they might be made accessible, and offer them to German immigrants. The fact that I am a planter myself, as well as having had some railroad experience, caused me to be called into conference and asked to take charge as president and general manager; also to name a plan and policy.

"I suggested a charter and organization by asking the promoters to sign and put up \$500 each in evidence of their good faith with which to pay for preliminary work, and 22 men signed, I asking to associate three railroad men, selected with care, each for his particular branch of work. These three gentlemen are Mr. C. H. Fenstermaker of Ohio, who is now with the Tremont & Gulf Railway, and is a high-class civil engineer, and a brother of the engineer-in-chief of the Louisiana Railway & Navigation Co.; Mr. H. L. Graham of McKinney, Texas, who is a fine rate man; Mr. E. S. Watson, who was formerly traveling auditor of the Louisiana Railway & Navigation Co., but now with the Southern Pacific at New Orleans. He is quite practical along construction lines.

"Others concerned are Messrs. L. Chopin, John Henry, A. Hertzog, all of Dairy, La., who are large planters; Mr. Rosenthal, merchant planter, of Cloutperville, La.; Messrs. Phanor Brazel, planter and attorney, John Barlow, planter for himself and the successor of Marco Juigvichi; Jack Bryant, oil-mill man; J. L. Linsley, compress man; L. N. Bird, planter and

dairyman; J. H. Williams, planter merchant and president of the Exchange Bank; W. H. Jack, planter and attorney; Arthur Watson, cashier of the Exchange Bank; L. Caspre, president of the People's Bank; L. Moody, timber contractor; Adolph Kaffie, merchant planter; D. C. Scarbore, attorney and capitalist, all of the city of Natchitoches; C. W. La Croix, president and general manager of the Iatt Lumber Co., and myself of Colfax, La.; H. C. Corry, with numerous sawmill interests and president of the Caddo-Rapides Planing Mill Co. of Alexandria, La.

"While these gentlemen could easily build this road themselves, the idea will be to let it to a construction company and sell bonds to pay. The road will be about 40 miles long, and known as the Natchitoches East & West, and runs through three wards in Natchitoches parish that are assessed at something more than \$3,000,000. We are asking a five-mill tax for 10 years and a free right of way. This is to guarantee interest on the bonds until the road gets on its feet.

"This road will connect at Natchitoches with the Texas & Pacific Railway, and also with the Beardsley road. It is owned by the Lincoln Trust Co. of St. Louis, Mo., I believe, and runs to a point opposite Colfax. It will be when completed one link in a road that proposes to connect the lines east of the Mississippi with the roads leading into West Texas, which will be done in this way. There is a lumber road started out from the Kansas City Southern at Manny and coming in the direction of Natchitoches. We propose to take over this road, and with a bridge across Red river at Colfax we will run east six miles to the end of a road built by Big Creek Lumber Co. of Pollock. I understand that this 70-pound rail and roadbed can be bought from Mr. Gould. This road crosses the Louisiana & Arkansas, a Buchanan-Frisco road, about 10 miles east of Colfax, and goes to Pollock, 22 miles away. It also crosses the Louisiana Railway & Navigation road at Colfax. The idea is then to make traffic arrangements with the Iron mountain to a point north of Little river, whence we will build track 15 miles to Jena, where we will take over the White Sulphur Lumber Co. road, that is building to Harrisonburg. At this point we cross the Ouachita river and build to Vicksburg, where we will connect with the Illinois Central. When asked about this road I tell them if I live it will connect Birmingham, Ala., with Beaumont, Texas. The distance we will ask for trackage on the Iron Mountain is 15 miles."

### MOBILE'S NEW STATION.

#### Handsome Railroad Terminal Opened for Two Prominent Companies.

The new and handsome union terminal station at Mobile, Ala., which has been under construction for more than a year, was formally opened for use during the past week, and will hereafter be devoted to handling the business of the Mobile & Ohio Railroad and the Southern Railway. The station is situated on Beauregard street, occupying the block between Royal and St. Joseph streets. It has a frontage of 195 feet, and faces southward. Its depth is 147½ feet, and the total length of the station and train shed is 600 feet. The building is three stories high, in the Spanish renaissance style, and is surmounted by a handsome dome. It is of reinforced concrete construction, with trimmings of pressed brick and terra-cotta. The architect was Mr. P. Thornton Marye of Atlanta, and the contractor was the Oliver Solitt Company of Chicago. The cost of the station was about \$575,000. It has six tracks.

In addition to containing extensive accommodations for the traveling public, the

station building also has apartments for the local officials of the Mobile & Ohio Railroad, and the entire equipment of the structure is thoroughly modern and superior.

The opening of this new terminal was marked by appropriate ceremonies and a banquet, which were attended by a number of prominent residents of Mobile and other cities, including officials of the railroad companies.

### NEW ORLEANS ELECTRIC.

#### The Company to Spend \$5,000,000 for Improvements to Its Property.

[Special Cor. Manufacturers' Record.]

New Orleans, La. April 21.

A great many improvements to the street-railway system of New Orleans, which will include the relaying of several miles of track and a number of other needed changes, will be made by the New Orleans Railway & Light Co. in the near future. The board of directors has already authorized the reconstruction of the tracks on Carondelet street between Canal and Clio streets, as well as the relaying of the tracks along Broadway. Several other streets have been looked after in this respect, with the result that the company has now several thousand yards of new track to put down.

In order to make these and to provide for other improvements the board of directors has recently authorized a \$5,000,000 issue of 6 per cent. gold debenture notes, the proceeds from the sale of which will be devoted to the improvements mentioned. These debenture notes are dated May 1, 1907, and are payable five years after date of issue, falling due May 1, 1912. The notes pay 6 per cent. per annum, which is payable the first day of November and May of each year, and are secured by the holdings of the company in New Orleans. The trust agreement between the railway company and the Interstate Trust & Banking Co., which has taken over the issue, has just been signed, and the banking company has offered for sale the first \$500,000 worth of the bonds. It is definitely understood that part of the big bond issue will be devoted to adding to the rolling stock of the corporation, and that in this direction a good deal of money will be spent.

President Foster of the company has refused to discuss the work that is in contemplation, but states that the board of directors and executive committee of the corporation are considering a number of big improvements.

### Onley to Wachapreague.

Mr. C. R. Waters, secretary of the Chesapeake & Atlantic Light & Power Co., writes from Onley, Va., to the MANUFACTURERS' RECORD saying that many of the arrangements of the company are yet to be completed. It proposes to build a railway seven and one-half miles long, connecting Onley, Locustville and Wachapreague, Va. At Onley the line will connect with the New York, Philadelphia & Norfolk Railroad.

Continuing, Mr. Waters says: "The territory to be traversed is a perfectly level, thickly-settled and well-developed trucking section. At one end of the line is the town of Onley, a thriving business place, while at the other end is the town of Wachapreague, located on the Atlantic seacoast.

"Wachapreague has about 600 inhabitants, and has no modern transportation. The clam, fish and oyster industry at this place is already enormous, and the business is just in its infancy as compared with what it would be had it the advantages of transportation. Located there is the 'Hotel Wachapreague,' which is considered one of the best hostleries south of

Atlantic City. There are also two club-houses with a membership of about 100, composed principally of Northern capitalists.

"We will be open for bids some time in the near future, but the date has not yet been set.

"The officers of the Chesapeake & Atlantic Light & Power Co. are E. T. Powell, president, Trower, Va.; B. T. Parks, treasurer, and C. R. Waters, secretary, both of Onley, Va.; board of directors, A. J. McMath, L. J. Savage, E. A. Ames, J. W. Rogers, W. A. Burton, C. B. Savage and J. F. Parks, all of Onley, Va.; Dr. J. W. Kellam, C. V. Willis, A. H. G. Mears and M. R. Bulman, all of Wachapreague, Va.; B. T. Gunter, Accomac, Va.; W. T. Rogers, Finney, Va., and W. J. Milliner of Locustville, Va."

### Galveston Terminal Contracts.

The Galveston Terminal Co. at Galveston, Texas, has let the first contracts for its extensive projected improvements. The Bowers Southern Dredging Co. was given the contract for filling in on 10 blocks of land, which requires 600,000 cubic yards of sand. Edward Ketchum of Galveston was given the contract to build dikes around the property, and C. Hanson & Son, also of Galveston, were given the contract to clear three blocks of land preparatory to beginning the work of filling in.

These contracts amount to about \$150,000, but Chief Engineer P. G. Burns is reported as saying that the terminal is to be ready for business in September, and that the company will spend \$800,000 this summer.

As heretofore stated, the company is making plans, and will invite bids for a brick or stone freight depot two stories high, 300 feet long, and with a platform 200 feet long and 46 feet wide; 30 miles of steel tracks, for which the steel was ordered several months ago, and a cotton platform of concrete and brick 1200 feet long by 240 feet wide; a roundhouse, repair shop, coal chute, houses for employes and an ice-storage house for supplying refrigerator cars.

### Velasco Road to Be Extended.

Mr. D. T. Bomar writes from Fort Worth, Texas, to the MANUFACTURERS' RECORD concerning the Houston & Brazos Valley Railway Co., saying: "This company has acquired 20.2 miles of railroad heretofore owned by the Velasco, Brazos & Northern Railway Co., and it is the purpose of the company to immediately commence the extension of the line from its northern terminus north up Oyster creek to a connection with the Gulf, Colorado & Santa Fe Railway. It will probably be built farther when this is completed, probably to a connection with the Missouri, Kansas & Texas Railway at Brookshire.

"The directors are Morgan Jones, chairman of the board; D. T. Bomar, president, both of Fort Worth; Felix Jackson of Brownwood, Texas, vice-president and general manager; Ed. S. Hughes of Abilene, Texas, secretary and treasurer; J. B. Wilson and William Thompson, both of Dallas, Texas; T. W. House of Houston, Texas; Bassett Blakely of Sandy Point, Texas, and E. D. Dorchester of Velasco, Texas.

"The country through which the line will run is very fertile, and is largely devoted to the production of sugar and cotton."

### Sanford to Walkertown.

Mr. C. A. Bray writes from Greensboro, N. C., to the MANUFACTURERS' RECORD that the Greensboro, Seaboard & Great Western Railway Co. has only been chartered, but is not yet organized. The incorporators are N. W. Thompson, C. H. Ire-



land, R. H. Brooks, J. Allen Holt, C. M. Vanstory, J. W. Fry, A. M. Scales, C. A. Bray, J. E. Brooks, R. H. Vaughn, J. R. Gordon, W. E. Allen, E. J. Justice, J. R. Hughs and C. D. Benbow.

As heretofore stated, this company proposes to build a line 80 miles long from Sanford, N. C., to Walkertown, N. C.

#### On the Gulf & Ship Island.

Thus far this season has seen extraordinary activity in lumber shipments from Gulfport. During the last two months over 60,000,000 feet has been shipped. The Gulf & Ship Island Railroad, whose southern terminus is at Gulfport, is receiving a consignment of 500 new freight cars, which are coming to hand at an opportune time. This road reports an increase over last year of 35 per cent. in the amount of cotton handled over the company's lines during the past season. The foregoing information is furnished by Fisk & Robinson of New York and Boston.

#### Baltimore-Annapolis Electric.

The Maryland Electric Railways Co. has awarded a contract to J. G. White & Co. for the electrical work necessary to convert the Baltimore & Annapolis Short Line from a steam railroad to an electric railway. The road is 27 miles long from Baltimore to Annapolis, Md., and while it has not yet been announced when the work will begin, it is expected to start soon, so as to have the line in operation with trolley cars by the time that the Washington, Baltimore & Annapolis Electric Railway Co. is ready to operate its line to the State capital.

#### Raleigh & Southwestern.

Concerning the extension of the Raleigh & Southwestern Railway, an officer of the Chesapeake & Ohio Railway Co. writes from Richmond, Va., to the MANUFACTURERS' RECORD as follows:

"The line under construction at present is an extension about six miles in length from the present terminus of the Raleigh & Southwestern at the mouth of Soak creek, in Raleigh county, West Virginia, up Soak creek and across a divide into the valley of Winding Gulf creek. The grading is under contract to Johnson & Briggs of Richmond, Va."

#### Extension and Tunnel.

Mr. Otto H. Rassfeld, secretary of the Manufacturers' Railway Co. of St. Louis, writes the MANUFACTURERS' RECORD that plans for the extension of the line are not fully developed. The company's engineer is Mr. Edward Flad, with office in the Fullerton Building at St. Louis.

It is reported that the company has in contemplation the building of a tunnel under the Mississippi river, and also an extension from St. Louis to Springfield, Mo., about 240 miles.

#### Appointments.

The Southern Railway Co. announces appointments as follows:

Mr. R. A. Campbell, general freight agent of St. Louis-Louisville lines, Chemical Building, St. Louis, Mo.

F. M. Kitchell, commercial agent, Birmingham Ala., vice R. L. Simpson, promoted.

H. S. Lemmon, soliciting freight agent, Memphis, Tenn., vice D. W. McKellar, resigned to engage in other business.

#### Texas State Railroad Extension.

The MANUFACTURERS' RECORD is officially informed that the construction of the proposed extension of the Texas State Railroad will be under the supervision of Hon. J. W. Wright of Tyler, Texas, a member of the State Penitentiary Board, who will give his personal attention to the

work, including the letting of all contracts for construction and equipment.

#### Southern Not to Build Engines.

Mr. C. H. Ackert, vice-president and general manager of the Southern Railway Co., writes the MANUFACTURERS' RECORD as follows:

"We have not in contemplation at the present time the erection of any facilities for the building of locomotives."

This statement from Mr. Ackert denies a press report to the effect that the company was preparing to build engines.

#### Santa Fe Extension.

An officer of the Gulf, Colorado & Santa Fe Railway Co. (Santa Fe system) writes from Galveston, Texas, to the MANUFACTURERS' RECORD that as the Texas Legislature has just authorized the merging of the company's lines in Texas a program has not yet been made up covering that work or the extension from Center to Paris, Texas, 150 miles.

#### Railroad Notes.

The first through train of the Louisiana Railway & Navigation Co. has made the run from Shreveport to New Orleans, La., bearing a number of officials of the company, which is rapidly improving its lately finished line.

The Baltimore Railroad Terminal Commission, which has under consideration plans to secure a new union station for Baltimore, has organized by electing Judge Thomas J. Morris, chairman; Mr. E. Stanley Gary, vice-chairman, and Mr. Frank N. Hoen, temporary secretary. The other members of the commission are Judge Henry D. Harlan and Messrs. D. H. Carroll and Calvin W. Hendrick.

The purchase of the Ocilla & Valdosta Railroad from Fitzgerald to Broxton, Ga., by a syndicate represented by Mr. H. C. McFadden, who now has charge of the property, has been followed by a report, as yet unconfirmed, that the Atlanta, Birmingham & Atlantic Railway is behind the deal and proposes to build an extension of the acquired line into Savannah, Ga., and also a westward extension into Alabama.

#### Oil-Mill Superintendents.

The next annual convention of the Oil-Mill Superintendents' Association will be held at Memphis, Tenn., June 5-7. In conjunction therewith there will be an exposition of oil-mill machinery and supplies. The association already has enough acceptances of space to insure the success of the exposition, and quite a number of manufacturers are considering the question of an exhibit. President M. W. Flaherty of the association writes to the MANUFACTURERS' RECORD:

"The exposition will not be operated as a money-making affair, but is intended to give our friends, the manufacturers and supply men, an opportunity to show their goods to men who conduct the practical operation of cottonseed-oil mills."

#### Alabama's Coke.

The State Mine Inspector of Alabama reports a total of 2,939,000 tons of coke manufactured in that State during 1906. Of this aggregate, Jefferson county manufactured 2,427,889 tons, Tuscaloosa county 391,692 tons and Walker county 119,509 tons. A report was obtained on 10,993 coke ovens in the State, including 617 in Bibb and De Kalb counties not manufacturing coke last year. It is stated that prospects are bright for an increase of 1,000,000 tons during 1907.

The Board of Trade of Bristol, Tenn., has elected Judge John W. Price, president, and Mr. W. H. Cox, vice-president.

## MINING

#### Texas Concrete Gravel.

Mr. Andrew Goddard of Waco, Texas, writes to the MANUFACTURERS' RECORD as follows:

"In connection with street and road building, I called attention to the concrete gravel in McLennan county, Texas. This was in the MANUFACTURERS' RECORD of some months ago. This gravel, if the earths were washed out of it, would be no better than river gravel, but taking it just as dug from the banks, it has its own concrete, so that on being packed and rained on it becomes a firm, good capping to a road. Just as it comes from the gravel pit, if hauled and placed on the road or street, it needs only for the wagons and other vehicles to run over it until it becomes packed, and will then be the best road that can be constructed from any material. We haul the gravel in wagons and place it on our public roads. This is slow and expensive. There is an opportunity for some company or individual to inaugurate a truck line with electric traction to haul the gravel to railroad points and from these to other towns."

#### Pushing Development Work.

The Straight-Mountain Coal & Mining Co. is reported from Gadsden, Ala., as having filed a deed of trust to secure a \$50,000 bond issue for the immediate development of the company's property in Etowah county. New and modern machinery will be installed and possibly coke ovens constructed. It is stated that the property contains three seams of coal, depth of which is about 30 inches, of good quality for blacksmithing, coking and domestic purposes. Officers of the Straight-Mountain Coal & Mining Co. are Messrs. Robert T. Baugh, president; James R. Boyd, vice-president, and H. J. Certain, secretary and treasurer. It is now operating at Carlisle with C. M. Baugh of Gadsden in charge.

#### Cypress Creek Coal Co.

The Cypress Creek Coal Co. of Tuscaloosa, Ala., has been organized with the following officers: W. E. Lenke of Birmingham, Ala., president; W. G. Somerville of Tuscaloosa, vice-president, and R. E. Rodas of Tuscaloosa, secretary and treasurer. The company is capitalized at \$400,000, of which \$200,000 is preferred and \$200,000 common stock. It has secured options on 3000 acres of coal lands in Tuscaloosa county, on the west side of the Warrior river, about eight miles from Tuscaloosa, and will develop the property at once, the initial output to be from 1000 to 1200 tons per day. This enterprise was referred to last week.

#### Zinc and Lead Development.

The Royalty Land & Mining Co. of Webb City, Mo., recently incorporated, advises the MANUFACTURERS' RECORD that it will install a concentrating plant at a cost, for erection and equipment, of about \$22,000. All machinery for the plant has been ordered and will be installed by Messrs. Wiginton & Milton of Webb City, who are the supervising architects. Mr. A. D. Hatton is the engineer in charge of construction of the plant, which will have a capacity of about 20 tons of zinc blend, producing also lead and zinc concentrates. Managing officers of the Royalty Land & Mining Co. are Messrs. R. A. Braznell and A. D. Hatton.

#### To Operate in Tennessee.

The MANUFACTURERS' RECORD is advised with reference to the recent incorporation of the United States Lead & Smelting Co., 27-28 Stiger Building, Nashville, Tenn., that the company will construct

and equip a lead-mining and smelting plant at a cost of about \$50,000. Officers of the company are Messrs. J. H. Connor, Nashville, Tenn., president; Tracey W. Pratt, Huntsville, Ala., vice-president; S. C. Robb, Nashville, treasurer and general manager, and I. Walter Edinger, Albany, N. Y., secretary. Mr. James M. Hackett of New York city is the engineer in charge of construction.

#### Leases Coal Lands and Plant.

Col. John G. Matthews of Barbourville, Ky., referring to his reported lease of the coal mines and plant of the Cumberland Coal Co., writes the MANUFACTURERS' RECORD that the Matthews Coal Co. has purchased the personal property and leased the coal plant, together with 834 acres of coal land, at Warren, Ky. It is intended to continue the operation of the plant, developing it to a capacity of 600 tons of coal per day. Officers of the Matthews Coal Co. are Messrs. John G. Matthews, president; R. W. Cole, vice-president; H. W. Matthews, secretary, and A. L. Matthews, treasurer.

#### Lead and Zinc Mines.

The Birmingham Zinc & Lead Co., 206 Title Building, Birmingham, Ala., advises the MANUFACTURERS' RECORD that it has leased lead mines and mill at Aurora, Mo., which will be operated under the supervision of J. R. Vail, general manager. This enterprise was referred to last week as incorporating with Messrs. J. R. Adams, president; W. C. Phillips, vice-president, and J. B. Dryer, secretary and treasurer.

#### Coal Mines and Coke Ovens.

Messrs. John J. Buttermore and J. M. Herpick of Connellsville, Pa., are reported to have purchased a tract of coal land along the Monongahela river between Fairmont and Morgantown, W. Va. The purchasers, it is understood, will develop the property for coal and also construct a battery of coke ovens.

#### Mining Notes.

The Southeastern Retail Coal Dealers' Association held a meeting at Atlanta, Ga., last week. It will meet next year in Knoxville, Tenn.

Shipments of lead and zinc ore from the Kansas-Missouri district for the week ended April 13 amounted to 11,895,800 pounds of zinc, valued at \$285,929, and 2,091,039 pounds of lead, valued at \$85,519.

Messrs. W. B. Kington, E. L. Kington and O. M. Kington have incorporated the Kington Coal Co. at Mortons Gap, Ky., with a capital stock of \$100,000 for the purpose of operating coal mines. It is stated that a railroad will be constructed from Mortons Gap to the mines.

The Jackson Coal & Coke Co. of Petersburg, Va., will exhibit at the Jamestown Exposition a block of Pocahontas coal weighing nine tons. This is said to be the largest piece of coal ever mined, and was produced from the mines of the Mill Creek Coal & Coke Co. in West Virginia.

The Lone Star Lignite Mining Co. has been organized at Dallas, Texas, with a capital stock of \$200,000 for the purpose of mining lignite in Hopkins county. Officers of the company are Messrs. N. Watelsky, president; H. N. Watelsky, general manager, and L. A. Allen, secretary-treasurer.

At a recent meeting of the Producers' Coal Co. of Bluefield, W. Va., Mr. E. L. Bailey, a prominent coal operator, was elected president of the company in place of A. I. Godfrey, and H. Archer Mitchell was elected general manager in place of S. S. Cofer. The Producers' Coal Co. is one of the independent shipping companies in the field.

## TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS' RECORD. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

### Cotton Compressing at the Gin.

The Harriss-Irby Cotton Co. of Oklahoma City, O. T., in a letter to the MANUFACTURERS' RECORD referring to a new square bale of cotton which is being marketed under the name of the "Harby" bale, says:

"This bale is compressed at the gin and put up by the 'Thomas Gin Compress,' and we own the rights to same for the new State of Oklahoma. The press will put the bales up as fast as the gin turns them out, and the 'Thomas Patent Folder' does away with the services of the man at the gin who runs the steam packer, which reduces the cost of putting up this bale a trifle less than the present square bale.

"The bale is 24 inches square and 48 inches long, weighs 500 pounds, hence has a density of about 30 pounds to the cubic foot. Owing to its dimensions (2x2x4 feet), it chambers perfectly and will load 160 to the ordinary standard 40-foot box car. This against 25 of the present uncompressed square bale or 50 of the present compressed square bale. See what it would do with the car shortage in the South.

"The bale moves directly from the gin to the consumer without having to be concentrated en route for compression, obviating considerable delay in handling and more or less exposure to the elements.

"It is entirely covered with closely-woven burlap, making it a desirable risk from an insurance standpoint, as it will not ignite from a spark or a lighted match coming in contact with it. At a recent test we took two shovels of red-hot coals and scattered them on the side of the bale, and they went out without setting fire to it. In addition, this complete covering of closely-woven burlap thoroughly protects the contents from the mud, trash and dirt which often adheres to the exposed part of the present square bale.

"The tare is only 15 pounds (or 3 per cent.), against 22 to 30 pounds on the present bale. The bale takes its mark beautifully, and thus diminishes the chance for substitution or loss of identity owing to marks becoming illegible or obliterated.

"The writer was present in Providence recently when a bale was opened up in a mill in that city, and the mill manager stated that it opened prettier than any bale he had ever seen."

### Cotton Mills for Texas.

Developments in the industrial activity of the Southwest indicate that the advantages of Texas and Oklahoma as cotton-manufacturing States will receive the consideration they warrant. Various projects for building cotton factories there are in progress or on foot, and several of them have been mentioned in the MANUFACTURERS' RECORD. Referring to the prospective mills, T. L. Peeler, industrial agent of the Missouri, Kansas & Texas Railway system, Dallas, Texas, writes the MANUFACTURERS' RECORD as follows:

"Considerable interest is manifested among the citizens of Texas and Oklahoma in the establishment of industries of this nature.

"While we have plenty of ordinary labor, we are short on skilled labor. In

some cases we have gotten experienced cotton-mill labor from the old States, Georgia, the Carolinas and Virginia, and I believe most of the proposed mills along our line are depending upon skilled labor from the States mentioned.

"We now have three prospective plants in Texas—at Lagrange, Alvarado and Sulphur Springs. The Sulphur Springs plant is almost a certainty; they have formed their company and are now figuring on the purchase of machinery. Messrs. John Hargrove and Phil H. Foscoe are the principal promoters and officers. Mr. B. M. Sansom is the leading promoter of the Alvarado mill, and Messrs. John Schumacher and George Lener are promoting the Lagrange plant. I understand the majority of the stock of the latter plant has been raised.

"I am of the opinion that there will be other mills established in Texas within the course of a very short time. There is no question but what the conditions here are more favorable for cotton mills than ever before. The mills which we have now in operation have been very successful, and are having no trouble in selling their output promptly."

### The McAden Mills.

The MANUFACTURERS' RECORD of December 6, 1906, presented general details of the plans of the McAden Mills of McAdenville, N. C., for building an additional mill and making other extensive improvements, about \$300,000 to be the total expenditure. Construction has since progressed rapidly, and the new mill building, 130x300 feet in size, with a 30x130-foot picker-room, will probably be completed and equipped with machinery by July 1. There will be 10,000 spindles, 44 frames for spinning and 20 twistors of 208 spindles each for producing two and four-ply yarns. This machinery is being furnished by the Howard & Bullough American Machine Co. of Pawtucket, R. I. The power for driving the machinery will be electricity, and a two-story 38x45-foot transformer house costing \$5500 has been built, the electrical machinery being furnished by the General Electric Co. of Schenectady, N. Y. Other betterments include the erection of an office building costing \$8000, a library building costing \$3500 and various other structures. Mr. R. F. Rankin of Mt. Holly, N. C., is contractor for the buildings, and Stuart W. Cramer of Charlotte, N. C., is the mill architect and engineer in charge.

### Hosiery Mill Needing Employees.

The MANUFACTURERS' RECORD of December 6, 1906, referred to the incorporation of the Vaughan Hosiery Co. of Vaughan, N. C., and its plans for locating a knitting mill. The company is now completing the installation of machinery, and expects to begin manufacturing by May 1. It will operate 58 knitting machine and complement of sewing machines, ribbers, loopers, dyeing plant, finishing equipment, etc. From 60 to 75 operatives will be employed, and employees for every department are wanted. It is stated that living is cheap in the Vaughan section, and the climate healthy. The company buys 10, 12, 16, 18, 20, 22 and 40 yarns, dye stuffs, aniline black process, lisle finish. It has a capital stock of \$25,000, half of which is paid in.

### Dixie Cotton Mills.

The Dixie Cotton Mills of Mooresville, N. C., has begun the erection of its buildings, and when they are completed will put in position some 5040 ring spindles and 2592 twisting spindles, with apparatus for dyeing raw stock. This company was reported in the MANUFACTURERS' RECORD of December 6, 1906, as organized with capi-

tal stock of \$100,000 for the purpose of building the plant here noted. It engaged A. H. Washburn of Charlotte, N. C., as architect-engineer in charge. Single or twisted, white or colored yarns, 20s to 30s, will be manufactured, and the plant is expected to be ready for operation by November. Mr. E. W. Brawley is president and H. N. Howard treasurer.

### Gray Yarn Mills.

The MANUFACTURERS' RECORD of February 21 presented details of the plans of Messrs. W. S. Gray & Sons and their associates for building a 20,000-spindle cotton-yarn mill at Woodruff, S. C. The projectors of the enterprise have since organized the Gray Yarn Mills, with capital stock of \$175,000, and will proceed to build the plant, the engineer previously engaged being J. E. Sirrine of Greenville, S. C. Nos. 20 to 30 yarns will be manufactured. Probably electricity will be used for driving the machinery. It is understood the company will begin operations with 10,000 spindles in position. Mr. W. H. Gray has been chosen president.

### Green River Manufacturing Co.

Messrs. S. B. Tanner and J. O. Bell of Henrietta, N. C.; J. A. Durham and others have incorporated the Green River Manufacturing Co. of Hendersonville, N. C., with a capital stock of \$251,000, for the purpose of manufacturing cotton goods. Messrs. Tanner and Bell were mentioned recently by the MANUFACTURERS' RECORD as interested in arrangements for building a cotton mill near Hendersonville, the plant to be operated by electricity to be transmitted from a water-power which it is proposed to develop near Hendersonville.

### The Cotton Movement.

In his report for April 19 Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, shows that the amount of cotton brought into sight during 231 days of the present season was 12,726,938 bales, an increase over the same period last year of 2,608,394 bales. The exports were 7,512,791 bales, an increase of 2,113,897 bales. The takings were, by Northern spinners, 2,260,755 bales, an increase of 233,837; by Southern spinners, 1,835,126 bales, an increase of 102,511 bales.

### Arlington Cotton Mills.

The Arlington Cotton Mills of Gastonia, N. C., will enlarge and improve its plant and equipment. The company has begun the erection of an extension to be 52 feet wide and 176 feet long, one story high. When this structure is completed the mills' equipment of machinery will be rearranged and probably 3000 or 4000 spindles and cone winders will be added later on. About 9500 spindles are being operated at present.

### Beimont Cotton Mills.

Among the new incorporations reported in March was the Belmont Cotton Mills of Shelby, N. C., the capital stock being \$120,000. This company continues an established plant of 3000 spindles, to which it is proposed to add 1000 spindles. The company has organized with J. J. McMurry, president; A. W. McMurry, treasurer, and J. L. Grice, superintendent.

### For Makers of Rope Machinery.

The MANUFACTURERS' RECORD is advised that J. M. Hause of Siluria, Ala., wants the addresses of makers of manufacturing rope. It is presumed that cotton rope is referred to, and probably Mr. Hause thinks of establishing a mill.

### Standard Cotton Mills.

The Standard Cotton Mills of Cedar-town, Ga., referred to last week as to

double its plant, has simply decided to add 2500 mule spindles, with preparatory machinery to match. The company is now installing the new equipment.

### Knitting Mill Proposition.

Mr. A. H. Bowling and associates of Oliver Springs, Tenn., will establish a knitting mill and are prepared to correspond with manufacturers of the machinery required. They are desirous of inducing an experienced man to invest in the enterprise and manage it. Correspondence to this end is invited.

### Contemplates Spinning Yarns.

The Russell Manufacturing Co. of Alexander City, Ala., contemplates installing a plant for spinning 6000 pounds of 24s cotton yarns per week. It operates a knitting mill and proposes consuming the yarns on its knitting machines, about 6000 pounds being the amount needed every week.

### Needs a Cotton Mill.

In writing to the MANUFACTURERS' RECORD regarding a water-power-electrical enterprise S. C. Treadwell of Tishomingo, I. T., says: "If you know of any chance for locating a cotton mill here we will have ample power to operate the same."

### Paulding Mill to Double.

The Paulding County Cotton Manufacturing Co. of Dallas, Ga., will double its plant of 5040 spindles, as reported last week. It has awarded contract to J. J. Williams for the erection of the additional building required.

### Planters' Manufacturing Co.

The Planters' Manufacturing Co. of Anniston, Ala., has been incorporated with capital stock of \$100,000 by Messrs. Wm. V. Bailey, E. M. Bailey, George T. Hoffman, P. N. Corr and N. S. Perkins.

### Textile Notes.

Mr. P. E. Glenn is reported as planning to organize company to build cotton mill.

The Pearl Cotton Mill of Elberton, Ga., is reported as having let contract for additional spinning machinery.

The Anderson (S. C.) Cotton Mills is reported as to provide for improvements to a portion of its mechanical equipment.

Mr. H. A. Dover of Calhoun, Ga., is organizing, it is reported, a \$150,000 stock company for the erection of a cotton factory.

The Magnet Knitting Mills of Clinton, Tenn., is said to have arranged for an increase of capital stock for the purpose of making enlargements.

The Southwestern Cotton Mills of Mammoth Springs, Ark., is understood to be planning to remodel plant and begin operations, using water-power.

The Bellevue Mills of Rock Hill, S. C., is reported as to enlarge its present plant, probably doubling capacity. Its equipment is 6000 spindles and 200 looms.

Messrs. J. W. Stonebraker, Henry Rausa, J. I. Messner and H. W. Preuss have incorporated the Warwick (O. T.) Cotton Products Co. with capital stock of \$100,000.

Messrs. John T. Stevens, Hazel Wither-spoon, Charles D. Jones and Marion Wither-spoon of Lancaster, S. C., propose organizing a company with capital stock of \$60,000 to build a cotton mill.

The Franklin Mills of Greer, S. C., will build an addition and install new machinery, to include probably 5000 spindles and other equipment. This company at present has 10,000 spindles and 288 looms.

The Elk Cotton Mills of Fayetteville, Tenn., is reported as to expend \$70,000



for the erection of a 75x186-foot addition and the installation of 10,000 spindles. The company has at present 6000 spindles.

Mr. Frank L. Robbins of Salisbury, N. C., has leased building and will install machinery for manufacturing damask or mercerized table linen. He is reported to have ordered the necessary machinery, including 40 looms.

It is reported that Messrs. M. K. Steele and M. F. Steele are investigating water-power property at Statesville, N. C., with a view to developing and building a cotton mill. They now operate a mill at Rockingham, N. C.

It is stated that Messrs. D. C. Sherrell, J. P. Diggings, J. E. Poindexter, S. M. Brogan, W. Z. Dozier and H. K. Holman of Fayetteville, Ala., are organizing a company to build a cotton mill; capital stock to be \$100,000.

Mr. N. B. Mills and associates of Statesville, N. C., propose to form company with capital stock of \$110,000 for the purpose of building a cotton mill. They are considering details and will organize during the next 30 days.

The Tallapoosa Mills of Tallapoosa, Ga., has engaged R. C. Biberstein of Charlotte, N. C., as engineer-architect in charge of building proposed 10,000-spindle cotton factory, of which details were stated in the MANUFACTURERS' RECORD of April 11.

Mr. H. S. McCalman and others of Buchanan, Ga., proposes organizing company to build the proposed cotton mill mentioned last week. They are now taking subscriptions to the stock, and will capitalize at \$100,000 or \$150,000. No details of plant have been considered.

The Harriman Knitting Mills of Harri-man, Tenn., made a large shipment last week of ladies' vests to Hamilton, Bermuda Island. This company has a modern equipment for the manufacture of ladies' fine ribbed underwear, and is readily disposing of a large output.

A report from Charlotte, N. C., says that the Elizabeth Mills of that city will double its present equipment of 6000 spindles. If this is undertaken it will be necessary for the company to erect a building to accommodate the new machinery. The company is manufacturing combed and carded fine yarns.

Messrs. Paul P. Bush of North Augusta, S. C., and George W. Green of Blackville, S. C., recently reported as to build a knitting mill at North Augusta, will erect a three-story 60x120-foot building to hold the necessary machinery. They are said to contemplate the investment of \$15,000 for this enterprise.

It is stated that details have been decided for the organization of the cotton-mill company lately noted as proposed by Paul Barringer of Mt. Pleasant, N. C. The building will be, it is reported, 100x200 feet in size and be equipped with 5000 spindles for manufacturing cotton yarns. Electricity will be used for motive power.

Cloth is now being manufactured by the Jackson Mills of Iva, S. C. This company was mentioned in the MANUFACTURERS' RECORD of February 7 as having completed its mill, previously under construction. It has an equipment of 20,800 spindles and 640 looms. Capital stock is \$300,000, and D. P. McBrayer of Anderson, S. C., is president.

The Hamilton Carhartt Cotton Mills has been incorporated with capitalization of \$500,000 by Hamilton Carhartt of Detroit, Mich., and associates. This company will take over an established plant, to which, it is reported, will be added a modern dyeing plant. Denims will be the product, and the output will probably be used by Mr. Carhartt in his overall factories at Detroit.

## LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

### Nashville Wants Tanneries.

The MANUFACTURERS' RECORD is informed that the establishment of tanneries in Nashville, Tenn., would be attended by large profits to the owners of the plants. Nashville has five large manufacturing concerns engaged in the harness, saddlery and strap leather lines. Four large shoe factories are in constant operation, and the business of all nine of these is said to have shown wonderful growth and development in the past two or three years. They require a large quantity of leather, and the amount consumed is increasing rapidly.

A pressing need for the establishment of tanneries is created by these large consumers, whose names will be made known upon application to the Nashville Board of Trade. This need is emphasized by the fact that only one small tannery is located in Nashville at this time, and it is operated by a company whose saddle factory consumes four times the output of the tannery. This same company, it is stated, buys about \$20,000 worth of harness leather in Milwaukee every month, and it is probable that many of the hides from which this leather is tanned are grown in Tennessee.

Nashville is reported as one of the best hide markets in the United States, having two abattoirs and a packing-house, beside assembling a large quantity of hides from the surrounding country. Another peculiar advantage that Nashville enjoys by way of inducing the location of tanneries is the fact that tanbark of the highest grade abounds within 40 miles of the city.

It is thought that experienced and capable managers could locate plants at Nashville under the most favorable circumstances, owing to the fact that their total output could doubtless be contracted for by the year without leaving the city, thus giving them the double advantage of eliminating freight charges and the expense of a sales department, beside insuring constant operation.

### Baltimore Building Progress.

A report of the Building Inspector of Baltimore, Md., for the first three months of the present year shows the total of building operations during that period, including new structures and additions, to represent an expenditure of \$1,117,814.50. This estimate does not include municipal improvements. A summary of the report shows that new improvements were made during January to the extent of \$212,800, in February \$314,600 and in March \$161,797, making a total of \$689,197. There were 33 additions and alterations in January, valued at \$61,495; 18 in February, valued at \$16,925, and 58 in March, valued at \$50,197.50, making a total of \$128,617.50. Of the new structures for which permits were secured during the three months referred to there were 457 dwellings, valued at \$695,600; 18 warehouses and factories, \$212,897; 1 newspaper office (addition), \$8000; 6 stores, \$17,700; 1 bank building, \$20,000; 1 apartment-house, \$25,000, and 1 office building, \$10,000.

### Naval Stores Company Reorganizes.

At the recent annual meeting of the Naval Stores Export Co. of Jacksonville, Fla., the company was reorganized, and is now said to be owned exclusively by producers of naval stores. The factors holding a stock interest in the old company agreed to accept 17½ cents for their stock, which proposition was approved by the stockholders of the new company. It is stated that the stock outstanding will be

called in and new stock issued on the basis of the assets of the company, which is about \$200,000. The following officers were elected: President, W. M. Toomer; vice-president and treasurer, Joseph H. Burroughs; secretary and assistant treasurer, P. H. Winter.

### Mississippi Pine Association.

At a special meeting of the Mississippi yellow-pine manufacturers at Hattiesburg last week the reorganization of the association was completed and a new constitution and by-laws adopted. The association will hereafter be known as the Mississippi Pine Association, and wholesalers as well as manufacturers will be eligible to membership, the dues being fixed on a sliding scale according to the production of the mill. Officers were elected as follows: President, J. F. Wilder; first vice-president, T. L. O'Donnell; second vice-president, F. E. Parks; secretary, E. A. Walker; treasurer, W. C. Rodgers.

### Buys Timber in West Virginia.

The Roaring Creek Lumber Co. of Clearfield, Pa., advises the MANUFACTURERS' RECORD that it has purchased about 1100 acres of timber land in Randolph county, West Virginia, and is installing two sawmills for its development. All necessary machinery for the plants has been purchased. Mr. E. L. Shirey is the general manager of the company, and will be in charge of operations. Other officers are Messrs. W. A. Porter, president, and H. B. Hartwick, secretary and treasurer.

### Completing New Mill.

The Tyrell Manufacturing Co., which is constructing a sawmill plant on the Scuppernon river, about one mile from Columbia, S. C., expects to begin operations within a short time. The new mill is equipped with a circular saw, and will have an initial capacity of between 20,000 and 30,000 feet of lumber per day, the capacity to be increased as logging and shipping facilities increase.

### Cargo for France.

The steamer Hellas cleared from the L. N. Dantzer Lumber Co.'s mills on the Pascagoula river, Mississippi, last week with a cargo of 1,000,000 feet of lumber for France. The shipment was made by the Standard Export Co. The American schooners Otis, St. Maurice and Delta are also loading cargoes at the same mills.

### Lumber Notes.

The Anchor Block Mill, manufacturing shuttle blocks from dogwood and persimmon, has begun operations at Devalls Bluff, Ark. It is stated that the blocks are cut and stored for shipment to England.

A national association of wire-bound box manufacturers was recently organized at South Bend, Ind., with the following officers: President, J. Caylor, Indianapolis, Ind.; vice-presidents, Hugh Brown, Battle Creek, Mich., and I. C. Elston, Crawfordsville, Ind.; secretary, James C. Marshall, Chicago, Ill.; treasurer, H. C. Witherspoon, Louisville, Ky.

### Southern States Portland Cement Co.

That another important and large plant for manufacturing Portland cement will be established at some point in the Southwest is indicated in the announcement last week of the granting of articles of incorporation to the Southern States Portland Cement Co. of Dallas, Texas. The company has a capital stock of \$3,000,000, and its incorporators are Messrs. William F. Cowhan, N. S. Potter and W. H. L. McCourtie of Jackson, Mich.; A. C. Stich of Independence, Kan., and W. W. Hawley of Huntington, Ind.

## FOREIGN LETTERS

The MANUFACTURERS' RECORD is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. Some of these letters indicate the disposition of foreigners to buy American goods, and are therefore of interest to our readers.

### Through the Manufacturers' Record.

P. B. de Pool, Obispo No. 7, Havana, Cuba:

"Some time ago, about two years, I made a connection with the Hydrocarbon Furnace Co. of St. Louis through the medium of your widely read paper, and today I have the pleasure of informing you that E. H. Hovey, president of said company, has just finished the installation of two plants for the prevention of smoke, with great success; in fact, one plant that had 30 days for trial ordered the second boiler to be installed and paid in six days for the installation already made. The other order was for a lumber mill using shavings, and the apparatus is working to satisfaction. Let this serve to thank you for the splendid connection made through your means."

### Hardware for England.

C. Leonard Notts, 155 Whitehill road, Handsworth, Birmingham, England:

"At the present moment I am prepared to connect with American manufacturers to handle their lines in this market, either as sole agent to buy and sell on my own account, sole agent to buy and sell on my own account on profit-sharing basis, manager and salesman for my English house, traveling salesman in this country but attached to the American office. Any other equitable basis that may be suggested would have my careful consideration. I would prefer to handle a line of American locks and builders' hardware, such as is made by the Yale & Towne Manufacturing Co., in whose employ I have been."

### Food Products for Hayti.

Henri Tseseau, secretary Chamber of Commerce, 5 Rue Capais, Port au Prince, Hayti:

"I may say that I would like to represent here any New York house handling the following articles: Flour, pork, salt meat, sugar, hams, leaf tobacco, red herrings and salt herrings in barrels, cheese, tinned butter, olive oil, fruits, potatoes, garlic, onions and rice. The terms would be f. o. b. New York on a credit of 60 days, the commissions to be paid every three months. Dry goods, novelties and hardware usual terms are 90 days' credit from date of invoice."

### Cloth-Weaving Machinery.

Sajiro Tateish, No. 43, Minamimachi, Takanawa, Shibaku, Tokio, Japan:

"Please do us the favor to forward catalogues of machinery for weaving cloth similar to imitation leather; also request manufacturers of the machinery to send samples of work, with prices and discounts; also another party wants similar cloth for imitation leather."

### Crude Creosote Oil.

Emil de Neve Nachf., Schonhauser Allee, 147, Berlin, Germany:

"I want to buy crude creosote oil from beechwood tar, and will be obliged to you to bring my name and address and my want to the attention of manufacturers."

The Board of Trade of Huntington, W. Va., has been reorganized with Messrs. F. H. Richardson, president; P. F. Kennedy, James A. Plymale and C. Wendle, vice-presidents; L. J. Ashworth, treasurer, and Wm. Chaffin, secretary.

The annual convention of the Texas Millers' Association will be held in Fort Worth on May 23.

## MECHANICAL

### Fire-Resistive Country House.

The tendency is more and more toward fire-resisting construction. In cities building laws and discriminating insurance rates restrict the erection of non-fireproof buildings; even dwellings designed as tenements are compelled to provide safeguards against fire; yet it is a rarity to find among the great number of homes one with any pretension to be fire-resisting.

stairway and fireplace, the entrance hall having a folding lavatory. Kitchen with large closets. Large porch constructed so that it may be used during the summer as an al-fresco dining-room and closed in during the winter. Upper floor—Three good-sized bedrooms, each opening onto a balcony, and a bathroom. The outside finish of the upper part of the house is smooth cement; lower part pebble-dash or stucco of such color as taste may dictate.

One feature in the construction is particularly worthy of consideration—the fire-

weight) are covered by broad basic patents, and mark a new era in manufacturing and handling the above commodities.

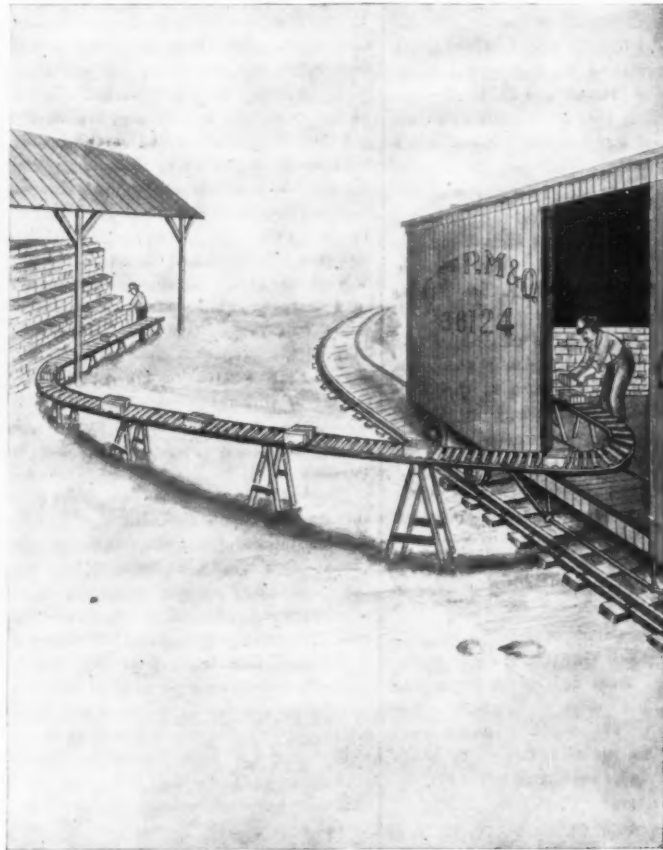
"The manufacturing public is not slow to catch onto the idea that, provided with a suitable track, all the above commodities will travel from loading point to destination by their own weight alone, and around curves where desired, thus cutting out all the useless expense of trucking out and returning empty.

"The fact that light men or even boys

simple. It has less wearing parts, wider variations of speed and much adjustment (in and out) of pulley on shaft. Workmanship and material are the best. The Gunther governor has a most pleasing outline. It provides for high speed, hence is very sensitive, and close regulation is obtained. There is sufficient material at all points to give the necessary strength. The bearings are long, and require very little power to drive them, which renders them very durable. The spring joint in the Gunther governor is a taper steel pin,



MATHEWS GRAVITY CARRIER.



Efforts are made occasionally through pictures and glowing descriptions of houses in the illustrated publications to bring before the prospective builder of a house the advantages of constructing houses on up-to-date fire-resistive principles.

Can we with moderate means erect a home which shall be so constructed of fire-retarding material that a fire accidentally started shall have little to feed upon; that the maximum of time shall elapse before a fire assumes dangerous proportions?

This question is answered in the affirmative and some facts tending to the proof are presented in a recent pamphlet reprinting an article from *Insurance Engineering* for January. The pamphlet presents illustrations of a small villa to be made as fire-proof as possible. The foundation or cellar walls are of 12-inch Phoenix hollow-tile blocks. The walls of the first and second stories are of similar material, but eight inches in thickness. The center or bearing wall is of six-inch Phoenix blocks. All other interior partitions are of three-inch semi-porous material. The cellar floor is concreted. The first and second floors are of eight-inch Herculean long-span arch. The roof is of six-inch Peerless construction, with a covering of tar and gravel. The mansard is of red clay roofing tiles. The method of construction provides for a house with soundproof rooms, and with no abiding-place for rats or other vermin to be found usually in country houses.

The interior arrangement is as follows: Cellar—Boiler-room, laundry and store-room. First floor—Large living room, with snugger and cozy corners. Open

proofing of the stairs. The soffit or lower side of the stairs is of six-inch Herculean hollow clay blocks, impervious to attack of fire from below.

For the finished flooring on top of the arch a filling of two inches of gypsum and linoleum of pleasing design has been suggested. It would provide a cool and easily-cleaned floor during the summer. In winter rugs could be placed, to be removed quickly and aired. The walls of hollow blocks, stuccoed in colors, make a house cool during summer and easily heated in winter.

Ample closet-room was provided for in the design. Cozy corners can be arranged in accordance with individual taste. The house, including a hot-water heating system, can be erected and made ready for occupancy for \$4500.

Messrs. Henry Maurer & Son, 420 East 23d street, New York, manufacture the building materials mentioned above, and can give information on this subject.

#### Mathews Gravity Carrier.

An accompanying illustration presents a view of the Mathews gravity carrier for the economical handling of brick, cement blocks, tiling, etc. This equipment is manufactured by the Mathews Gravity Carrier Co. of Merriam Park, St. Paul, Minn. The company refers to its gravity-carrying equipments as follows:

"We are the pioneers in ball-bearing gravity carriers in this country, or in the world, for that matter. Our various devices for conveying brick, cement blocks, tiling, pottery, loose lumber, boxes or packages by gravity alone (by their own

weight) are covered by broad basic patents, and mark a new era in manufacturing public, especially in the South, where able and efficient laborers are scarce and come high.

"The accompanying illustration of the 'new way' gives a correct representation of a car being loaded with loose brick from kiln about 150 feet.

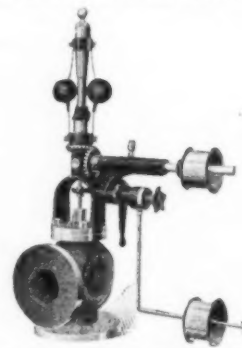
"In the 'new way' all the useless waste of traveling that 150 feet and back again, and being in the way of others, is cut out. Result, each of the two men is working to the best possible advantage, standing in his tracks and effecting a saving of the labor of three men."

#### The Gunther Governor.

Manufacturers of steam and gas engines and owners and operators of power machines of that character are naturally interested in improved governing devices. The subject of governors is, therefore, a timely and interesting one. It is therefore pertinent to call attention to the governors made by the Gunther-Wright Machine Co. of Owensboro, Ky. In describing its governor the company says:

"The bearings are extra long and large. The shafts and spindle, or quill, are steel. The gears are cut from solid metal, and run noiseless. The stuffing-box is extra deep. The speeder spring is a compression spring, and will not twist off. The speeder parts are enclosed, and not exposed to dust and dirt. Only two pins to wear, and they have taper babbitted bearing clear through the balls and adjustment to take up the wear. The safety stop is very

which has a babbitted bearing clear through the ball, and is slotted for screw-driver, so that the wear of a year can be taken up in a few seconds. All Gunther governors are made so that the automatic stop can be attached at any time, and when ordered without automatic stop it can be supplied later if desired, as it is no trouble to attach same. When the automatic stop of a Gunther governor is tripped on account of the belt breaking it



THE GUNTHER GOVERNOR.

is only necessary to raise the automatic stop pulley up and replace the same on belt. That is, the governor is not thrown out of gear, nor are the speeding parts interfered with."

An accompanying illustration presents a view of the Gunther governor.

The Architectural League of America, in session at Washington, elected Adin B. Lacey of Philadelphia, speaker, and S. C. Gladwin of Cleveland, secretary.



# Construction Department

## TO OUR READERS!

In order to understand and follow up properly the Construction Department items, please bear in mind the following statements:

### EXPLANATORY.

The MANUFACTURERS' RECORD seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the MANUFACTURERS' RECORD.

### ADDRESS FULLY.

To insure prompt delivery of communications about items reported in these columns, the name of one or more incorporators of a newly incorporated enterprise should be shown on the letter addressed to that town, or to the town of the individual sought, as may be shown in the item, as sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. This will help to insure prompt delivery of your communication, although it is inevitable that some failures on the part of the postal authorities to deliver mail to new concerns will occur.

### WRITE DIRECTLY.

It is suggested to advertisers and readers that in communicating with individuals and firms reported in these columns, a letter written specifically about the matter reported is likely to receive quicker and surer attention than a mere circular.

## ALABAMA.

Alexander City, Ala.—Cotton-yarn Mill.—Russell Manufacturing Co. contemplates installing plant to spin 6000 pounds of 24s yarns per week for consumption in its knitting mill.

Anniston, Ala.—Cotton Mill.—Incorporated: Planters' Manufacturing Co., with capital stock of \$100,000, by William V. Bailey, E. M. Bailey, George T. Hoffman and others for manufacturing cotton goods.

Ashland, Ala.—Cottonseed-oil Mill.—W. B. Wallace is president of cottonseed-oil mill company reported organized January 31 issue; other officers: H. L. Winn, vice-president; A. A. Northon, secretary and treasurer; capacity of mill, 2000 tons per season of five months. A. A. Northon is purchasing agent; paid capital, \$25,000; buildings now in course of construction.

Axle, Ala.—Woodworking Plant.—Ohio-Pennsylvania Lumber Co. incorporated with \$5000 capital stock. C. M. Kirk is president and Charles Anderson secretary-treasurer.

Battelle, Ala.—Iron Furnace.—E. T. Schuler, Birmingham, Ala., vice-president of the Southern Steel Co., telegraphs the Manufacturers' Record that there is no truth whatever in the current report that his company has purchased and will improve the Lookout furnace at Battelle.

Bessemer, Ala.—Gas Plant.—D. J. Gay, L. N. Dantzer, Jr., and W. H. Harrison (lately noted as obtaining gas franchise) will organize the Bessemer Gas Co. to build plant, buildings and equipment to cost \$100,000; W. H. Harrison, Jr., Biloxi, Miss., engineer in charge.\*

Birmingham, Ala.—Blue-printing Plant.—Birmingham Blue Printing Co. incorporated by W. M. McKay, T. J. Wingfield and William Conniff.

Birmingham, Ala.—Bottling Works.—Birmingham Beverage Co. incorporated with \$15,000 capital stock by Thomas M. Williams, C. V. Holland and W. T. Williams.

Birmingham, Ala.—Clay Manufacturing.—

Myers Clay Manufacturing Co. incorporated with \$10,000 capital stock to manufacture clay pipe, fireproof roofing, paving brick, etc. J. E. Budwig is president, B. H. Kerr vice-president and Harry W. Myers secretary-treasurer.

Birmingham, Ala.—Construction.—Kleeman-Wright Construction Co. incorporated with \$3000 capital stock to construct railroads, dams, bridges, etc., by F. F. Kleeman, R. H. Wright and John C. Forney.

Birmingham, Ala.—Disinfectants, etc.—Birmingham Disinfectant Co. incorporated with \$5000 capital stock. Dr. Oscar Hayes is president and treasurer, John R. Ryan vice-president and S. H. Tuck secretary.

Carlisle, Ala.—Coal Mines.—Straight Mountain Coal & Mining Co., owning 2400 acres of coal lands in Etowah county, will issue \$50,000 of bonds for immediate development. It is proposed to install additional machinery and build coke ovens; Robert T. Baugh, Huntsville, Ala., president. C. M. Baugh, Gadsden, Ala., is in charge of operations.

Columbiana, Ala.—Iron-ore properties.—Columbiana Ore Co., recently incorporated with capital stock of \$300,000 in West Virginia, organized with the following officers: President, E. P. Keech, Jr.; secretary-treasurer, G. R. Mueller; directors, Messrs. William C. Seddon, De Courcy W. Thom, Samuel C. Rowland and Richard H. Edmonds, all of Baltimore, Md. This company controls extensive tracts of iron-ore land in Alabama, but will not undertake any developments at present.

Evergreen, Ala.—Ginnery.—F. R. Whittle, mentioned April 11 as establishing ginnery, will erect buildings after plans by Continental Gin Co. of Birmingham at cost of \$5000; capacity of plant to be 40 to 50 bales cotton per day.

Fayetteville, Ala.—Cotton Mill.—D. C. Sherrell, J. P. Diggins, S. M. Brogan and others are said to be organizing \$100,000 company to build cotton mill.

Flatrock, Ala.—Lumber.—Wilcox Lumber Co. incorporated with \$10,000 capital stock by A. J. Simmons, F. A. Pritchett and A. L. White.

Gadsden, Ala.—Land Improvement.—Gadsden Development Co. has been organized with \$5000 capital stock. It has acquired the holdings of the Gadsden Realty Co., including about 4000 lots in South Gadsden, which will be improved by the construction of cement sidewalks and erection of residences. F. L. Ambrister, president, and A. M. Treadwell, secretary-treasurer, both of Knoxville, Tenn. Offices in the North Alabama Real Estate Co. Building, Broad street, Gadsden.

Gordo, Ala.—Cannery.—Gordo Canning & Manufacturing Co. incorporated with \$5000 capital stock by H. E. Williams and others.

Lynn, Ala.—Coal Mines.—N. L. Pierce and J. E. Pierce of Huntsville, Ala., have purchased the coal lands of the Winston Coal Co. in Winston county for further development. The mines at Lynn, on the Northern Alabama Railway, are in active operation.

Powers, Ala.—Cotton Gin, etc.—Powers Model Ginnery & Mill Co. incorporated with \$5000 capital stock by E. W. Stay, C. F. Powers and O. P. Barron to operate cotton ginnery, sawmill, grist mill, etc.

River Falls, Ala.—Lumber Plant.—Horse-shoe Lumber Co. will rebuild lumber plant reported burned at a loss of \$75,000.

Roanoke, Ala.—Guano Factory.—Roanoke Guano Co. will establish guano and acid plant, investing about \$100,000.

Tuscaloosa, Ala.—Coal Mines.—Cypress Creek Coal Co., recently organized with \$400,000 capital stock, has elected W. E. Leake, Birmingham, Ala., president; W. G. Somerville, vice-president, and R. E. Rodes, secretary-treasurer. Company was reported April 18 as having purchased 3000 acres of coal land in Tuscaloosa county, expecting to mine about 1000 tons of coal daily.

## ARKANSAS.

Brinkley, Ark.—Concrete-block and Paving Plant.—Brinkley Concrete Block & Paving Co. incorporated with \$5000 capital stock. D. S. Coleman is president, Jim Shults secretary and Frank Andrews treasurer.

Felsenthal, Ark.—Navigation and Logging. Ouachita Navigation & Logging Co., lately reported incorporated, has organized with T. B. Milkey secretary. It will engage in logging operations on Ouachita and Saline rivers by land and water.

Fort Smith, Ark.—Woodworking Plant.—

Arrangements are being made to establish plant to manufacture doors, sash moldings, etc. R. H. Finley is active manager of company.

Little Rock, Ark.—Telegraph System.—Arrangements are being made for constructing telegraph line, 60 miles long, between Gurdon and Fort Smith, Ark., on the Fort Smith branch of the Iron Mountain. Work has been started on the construction of line, 270 miles long, between Newport and Carthage, Ark., on the White River division of the Iron Mountain. It is also proposed to finish part of new line between Eudora and Gilbert, I. T. (on a branch of the Valley division), now completed to Pioneer, I. T., a distance of 32 miles; entire line will be 80 miles long; James W. Way, St. Louis, Mo., consulting engineer of the St. Louis, Iron Mountain & Southern Railway.

Little Rock, Ark.—Brick Plant.—Southern Engineering & Contracting Co., lately reported incorporated with Mord Roberts president and G. W. Hershman secretary and treasurer, will erect sand-handling plant and sand-lime brick plant on its perfected gravity plan.\*

Little Rock, Ark.—Carriage and Implement Works.—Trainer Carriage & Implement Works incorporated with \$15,000 capital stock; G. G. Dood, president; C. L. Kraft, vice-president, and L. P. Kraft, secretary-treasurer.

Mammoth Springs, Ark.—Cotton Mill.—Southwestern Cotton Mills is reported as to remodel its plant and begin operations, using water-power.

Yellville, Ark.—Zinc and Lead Mines.—White River Zinc & Lead Co. incorporated with \$300,000 capital stock; S. M. Dally, president; Martin Hicks, vice-president, and T. C. Keeter, secretary-treasurer.

## FLORIDA.

Bartow, Fla.—Laundry.—W. E. Day and Mr. Willis will erect building in which they will install present laundry machinery, together with additional equipment.

Bradentown, Fla.—Fullers Earth & Oil.—George W. Land has plans for development of fullers earth deposits and oil-bearing properties; J. H. Gray, engineer in charge; W. M. Baxter interested.

Fivay, Fla.—Sawmill.—Aripeka Sawmill Co. will rebuild plant recently reported burned at a loss of \$150,000.

Fort Meade, Fla.—Ice Plant.—Alf Perry will build six-ton ice plant.

Fort Meade, Fla.—Wagon Shop.—J. M. Maddox will build blacksmith and wagon shop.

Jacksonville, Fla.—Viaduct.—Board of Public Works has approved plans and specifications submitted by W. L. Seddon, chief engineer of the Seaboard Air Line Railway, for proposed viaduct over the railroad tracks of that company, Southern Railway and St. Johns River Terminal Co. on East Adams street. Bids will probably be published next week.

Jacksonville, Fla.—Railway Shops.—Seaboard Air Line Railway's new shops, detailed recently, will be equipped for general locomotive and car work, capacity to be many cars and 24 locomotives per month. Buildings will be erected according to plans lately stated. They and equipment will cost \$600,000. No machinery has been purchased, and specifications for same are now being prepared in the office of A. I. Totten. S. O. Graham is engineer and architect in charge; offices at Portsmouth, Va.\*

Jacksonville, Fla.—Terminals.—F. A. von Eberstein & Co. have contract to erect wharves and railroad terminals for the Seaboard Air Line Railway.

Mulberry, Fla.—Phosphate Mining.—Reported that H. L. Pierce, manager of the Pierce Phosphate Co., and Mr. Howden, manager of the Prairie Pebble Co., will organize company to develop phosphate lands recently purchased. It is stated that the plant of the Palmetto Phosphate Co. at Mulberry will be improved and operated.

Pensacola, Fla.—Water-works.—City will probably purchase at \$187,500 the entire plant and holdings of the Pensacola Water Co., bond issue of \$250,000 being available for providing municipal water-works; remaining money will be expended in improvements; Charles H. Bliss, Mayor. (Referred to November 1.)

St. Augustine, Fla.—Sewerage.—City will vote May 21 on the issuance of \$75,000 of bonds for the construction of sewerage system. Address The Mayor.

## GEORGIA.

Atlanta, Ga.—Water-works.—City is arranging for its proposed water-works, for which bonds were recently reported issued; plant to include coagulating basin, 240x75 feet; clear-water basin, 100 feet in diameter; filter plant, 4,000,000 gallons' capacity; bids are in. Park Woodward is general manager and engineer in charge.

Atlanta, Ga.—Manufacturing.—A. D. and Max Greenfield and Joseph Loewus have purchased site, 100x200 feet, adjoining lot now owned and having a frontage of 67 feet; purchase price \$50,000. It is contemplated to erect a four-story brick building for store and manufacturing purposes.

Atlanta, Ga.—Slate Quarries.—Cherokee Slate Co., lately reported incorporated with capital stock of \$50,000, will develop slate quarries, expending for sheds and machinery about \$10,000; offices at 516 Prudential Building.\*

Atlanta, Ga.—Blow-pipe Factory.—Atlanta Blow Pipe & Manufacturing Co. will be incorporated to establish plant for manufacturing blow-piping systems and other mechanical apparatus, etc. A. J. Leitch, formerly of Continental Blow Pipe Co., Lexington, N. C., is forming the new company.

Atlanta, Ga.—Amusements.—Phoenix Amusement Co. incorporated with \$25,000 capital stock by Charles L. Chosewood, J. M. Simonton, W. C. Puckett, Jerome Jones and others to operate the "White City" in Little Switzerland.

Atlanta, Ga.—Coal Mines.—Emory Gap Coal Co. incorporated with \$20,000 capital stock by Nicholas Ittner, W. L. Peel, John W. Zuber, Paul H. Randell and others.

Atlanta, Ga.—Mattress Factory.—Metzger Mattress Factory, lately reported incorporated, will erect three-story building 100x150 feet for the manufacture of mattresses, springs, cots and bedding. Address Box 752.\*

Buchanan, Ga.—Cotton Mill.—H. S. McCalman and others propose organizing company with capital stock of \$100,000 to build cotton mill.

Calhoun, Ga.—Cotton Mill.—H. A. Dover is reported as organizing company with \$150,000 capital stock to build cotton mill.

Cedartown, Ga.—Woodworking Plant.—Central of Georgia Railway will not erect woodworking shop; recently incorrectly reported.

Cedartown, Ga.—Standard Cotton Mills will add 2500 mule spindles with preparatory machinery to match, instead of doubling plant as recently reported.

Commerce, Ga.—Water-works and Sewerage.—J. B. McCrary & Co., Atlanta, Ga., are engineers for city's proposed water-works. Mayor, C. J. Hood. (Mentioned recently.)

Dahlonega, Ga.—Gold Mines.—Liberty Bell Gold Mining Co. incorporated with \$1,000,000 capital stock by H. A. Buell, C. R. Sovey and others.

Dahlonega, Ga.—Gold Mines, etc.—Georgia Gold Mining & Power Co. incorporated with \$100,000 capital stock by J. F. Moore of Dahlonega, A. G. Sharpe, Atlanta, Ga.; A. J. Warner, Gainesville, Ga., and others.

Dallas, Ga.—Cotton Mill.—Paulding County Cotton Manufacturing Co. will double its 5040 spindle mill, as reported recently. It has let contract to J. J. Williams for erection of additional building required.

Entonton, Ga.—Sewerage.—City will complete sewer system, for which bond issue was recently made, as previously noted; cost \$10,000; engineer, E. H. Davis, Griffin, Ga.\*

Ellberton, Ga.—Cotton Mill.—Pearl Cotton Mill is reported as having let contract for additional spinning machinery; present equipment, 7500 spindles and 174 looms.

Fitzgerald, Ga.—Excelsior Plant.—Moore Real Estate Co. intends to install plant for manufacturing excelsior.\*

Gordon County, Ga.—Mineral Development. A. H. Quinn and Max Gerson, Gadsden, Ala., reported as having purchased 1800 acres of brown ore land in Gordon and Walker counties, Georgia, for immediate development.

Jeffersonville, Ga.—Cotton Mill.—P. E. Glenn is reported as planning to organize company to build cotton mill.

Lagrange, Ga.—Cotton Ginnery.—The Electric Ginnery will be organized by E. G. Hood, Fuller E. Callaway and others to build cotton ginnery of 100 bales' capacity daily, operated by electricity; capital stock, \$10,000. Mr. Hood is chairman of committee to buy machinery. (Lately mentioned.)

Macon, Ga.—Lime Works.—R. E. Findlay contemplates establishing lime works. No machinery has been purchased.\*

Metcalfe, Ga.—Timber Development.—J. L. Phillips & Co., Thomasville, Ga., have purchased at \$127,000 about 20,000 acres of timber land in Thomas county. It is proposed to build mill with daily capacity of 50,000 feet and several tram roads to handle the timber. (This company was reported January 31 as increasing capital stock from \$500,000 to \$1,000,000.)

Milledgeville, Ga.—Lumber Plant.—Cook Lumber Co. will re-establish plant recently burned. A brick-and-wood building will be erected, for which plans are not yet completed. Thomas Cook is manager.

Monticello, Ga.—Electric-light and Water Plants.—The city's proposed bond issue is for \$7000, divided as follows: Three thousand dollars to enlarge and improve electric-light plant, \$1000 to extend water mains and \$3000 to enlarge school buildings. Monroe Phillips is Mayor.

Savannah, Ga.—Carriage Works.—Cohen Carriage Co. incorporated with \$100,000 capital stock by H. H. Cohen, Mark Apple, Max Robinson and others.

Savannah, Ga.—Candy Factory.—Conida Chocolate Manufacturing Co. incorporated with \$50,000 capital stock by Paul Conida, Jerry George, J. G. Smith and M. A. O'Byrne. At present it will operate the candy-manufacturing plants of Messrs. Conida and George, but later it is proposed to establish an extensive factory.

Savannah, Ga.—Ice Plant.—Retail liquor dealers propose establishing 40-ton ice plant; John Stahmer, secretary of association.

Savannah, Ga.—Street Paving.—Southern Paving & Construction Co., Chattanooga, Tenn., has contract for repaving and resurfacing asphalt streets of city. About \$75,000 will be expended.

The Rock, Ga.—Canning Factory.—It is proposed to establish canning factory, and J. A. Stafford may be addressed for information.\*

Union, Ga.—Dairy.—Union Dairy Co. incorporated with \$15,000 capital stock by M. P. and T. E. Roane.

Washington, Ga.—Ice Plant and Cottonseed-oil Mill.—Pope Manufacturing Co. is making improvements to plant, including the installation of 20-ton ice plant. It is also proposed to install cottonseed-oil mill. Fred B. Pope, Augusta, Ga., is president.

Waycross, Ga.—Paving Improvements.—City will provide for constructing 12,000 square yards of brick paving. C. J. Thomas is engineer in charge. (Lately mentioned.)

Waycross, Ga.—Electric-light and Gas Plant, Mr. Loomis has asked City Council for franchise for electric-light and gas plants. It is proposed to manufacture gas from light-wood.

#### KENTUCKY.

Baskett, Ky.—Coal Mines.—Reported that Thomas Baskett has purchased coal and fire-clay rights to several hundred acres of land and will develop same.

Central City, Ky.—Sewerage.—City has voted affirmatively the issuance of \$17,000 of bonds for construction of sewers. Address The Mayor.

Covington, Ky.—Sand Mining.—Queen City Sand Co. incorporated with \$25,000 capital stock by B. F. Graziani of Covington, C. J. Lammert and W. M. Perin, both of Cincinnati, Ohio.

Hardinsburg, Ky.—Elevator.—T. J. Hook has awarded contract for construction of fireproof elevator with capacity of 20,000 bushels. Structure will be of steel and concrete and will adjoin present flour mill.

Hopkinsville, Ky.—Road Construction.—Christian county will vote on the issuance of \$100,000 of bonds for road construction and improvement. Address County Commissioners.

Lexington, Ky.—Sewerage.—City has awarded contract to the Kentucky Plumbing Co. for construction of sanitary sewer on South Limestone street. (J. J. Fitzgerald was reported April 18 as being lowest bidder for the construction of this sewer.)

Louisville, Ky.—Street Improvements.—Board of Public Works will receive bids until April 29 for reconstructing portion of Oak street with necessary abutments, retaining walls, stairways, etc.; Roger G. McGrath, secretary.\*

Louisville, Ky.—Manufacturing.—Ahrens Manufacturing Co. incorporated with \$15,000 capital stock by Fred Ahrens, Walter S. Wessling, Charles W. Ratterman and others.

Louisville, Ky.—Dam Construction.—Hege-wald Iron Co., New Albany, Ind., will probably receive contract at about \$30,000 for construction of the Boule dam, Capt. Harry Burgess, United States engineer, having rec-

ommended to the War Department that the bid be accepted. In addition to the Boule dam, a Chanoine dam, 650 feet long, will be built across the Indiana chute.

Louisville, Ky.—Bottling Works.—Belmont Distillery Co. will erect one-story brick bottling plant to cost \$4500.

Louisville, Ky.—Hardwood Flooring.—Lanham Hardwood Flooring Co. incorporated with \$20,000 capital stock by P. B. Lanham, A. E. Lanham and J. M. Lanham.

Middlesboro, Ky.—Coal Mines.—Marymoore Mine, lately reported incorporated, will locate mines and offices three miles north of Middlesboro, on L. & N. Railroad, C. V. division. Officers are W. T. Claiborn, president; D. E. Tate, vice-president; Blevins Hudnall, secretary and treasurer. Postoffice and shipping point, Excelsior, Ky. (Mentioned April 18.)

Mortons Gap, Ky.—Coal Mines.—Kington Coal Co. incorporated with \$100,000 capital stock by W. B. Kington, E. L. Kington and O. M. Kington; railroad will be built from Morton's Gap to the mines.

Paducah, Ky.—Ochre Development.—Kentucky Ochre Co. incorporated with \$10,000 capital stock by F. E. Lack, J. R. Rork and R. R. Winston.

Pike County, Ky.—Coal Mines.—Big Branch Coal Co. incorporated with \$80,000 capital stock by J. W. Cockrel, Lookout, Ky.; G. S. Couch, Jr., Charleston, W. Va., and H. C. Berry and James H. Crumble, Philadelphia, Pa.

Prestonburg, Ky.—Oil and Gas Wells.—Levisa Oil & Gas Co., capitalized at \$100,000, has secured franchise to supply Prestonburg and Paintsville, Ky., with natural gas for fuel for illuminating purposes. G. H. Dimick, Sr., J. C. Mayo, J. W. M. Stewart, W. F. Hite and others are said to be interested.

Rabbit Hash, Ky.—Road Construction.—Rabbit Hash, Waterloo & Bellevue Turnpike Road Co. incorporated with \$10,000 capital stock by Noah West, S. H. Marshall and W. G. Kite.

Uniontown, Ky.—Coal Mines.—Reported that William Morgan has purchased Davidson's mines and an additional large tract of coal rights on the Illinois Central Railroad about one mile from Uniontown for further development. It is contemplated to build modern tipples and new shafts.

Valley View, Ky.—Electric-power House.—Lexington & Interurban Railway Co. will erect central power-house recently mentioned; cost of buildings and equipment about \$500,000. Sargent & Sundry, Chicago, Ill., have charge of construction. At start 3000-kilowatt Curtiss steam turbines will be used and 3000 horse-power in boilers. B. & W. Officers are: J. Levering Jones, president, Philadelphia, Pa.; Louis Des Cognets, vice-president, Lexington, Ky.; R. T. Gunn, general manager, Lexington, Ky.; J. P. Pope, electrical and mechanical engineer, Lexington, Ky; principal address, Lexington, Ky.

Warren, Ky.—Coal Mines.—Matthews Coal Co. (not Matthews Jellico Coal Co., as recently stated) has purchased the personal property and leased the coal plant of the Cumberland Coal Co. at Warren. Some 834 acres of land are included and daily output will soon be 600 tons; president, John G. Matthews; business and postoffice address at Hugel, Ky.; telegraph office at Flat Lick, Ky.

Worthville, Ky.—Land Improvement.—Worthville Realty Co. incorporated by Emmett Stout, W. B. Messink and C. T. Nash.

#### LOUISIANA.

Alexandria, La.—Paving.—City has let contract to Southern Construction Co., Hattiesburg, Miss., for paving with vitrified brick lower 3d street; W. B. Turner, Mayor. (Mentioned recently.)

Alexandria, La.—Paving.—City Council will open bids on May 7 for paving Bolton avenue and 4th street with bitulithic or asphalt paving, and will open bids in June for paving Jackson street with either of above materials; W. B. Turner, Mayor. (Recently mentioned.)

Crowley, La.—Rice Mill.—Hunter Rice Mill Co. will rebuild plant recently reported burned at a loss of about \$100,000. W. H. Hunter, Jr., manager.

De Quincy, La.—Railroad Repair Shops.—Colorado Southern, New Orleans & Pacific Railroad has begun the erection of proposed terminal buildings, including machine shop, 400 feet long and 100 feet wide; paint and coach shops and 10-stall roundhouse; B. B. Gordon, Beaumont, Texas, chief engineer.

Houma, La.—Electric-light Plant.—Charles H. Jenks, civil engineer, Fayette, Miss., has contract to prepare plans and specifications and to superintend the construction of proposed electric-light plant costing about \$20,000.

New Orleans, La.—Foundry.—Sutton Foundry & Structural Steel Works has completed the erection of building; brick; 160x35 feet; modern machinery has been installed. Joseph P. Sutton, at present proprietor, will organize stock company to operate the plant.

New Orleans, La.—Land Reclamation.—It is reported that a company will soon be incorporated to develop about 8000 acres of swamp land near Lee Station, recently purchased. Warren B. Reed, consulting engineer, has surveyed the property and plans are now being prepared for reclaiming the land. It is stated that the acreage, after being drained, will be cleared and divided into building lots or leased for agricultural purposes. Frank B. Hayne, R. H. Downman, Fritz Jahncke, L. S. Berg and Edgar H. Farrar are said to be interested.

New Orleans, La.—Brewery.—Announcements state that Louisiana Brewing Co. will build an addition to plant and install new machinery.

New Orleans, La.—Coffee Plant.—Reported that Reilly, Taylor & Co., importers, roasters and grinders of coffee, will expend about \$20,000 in enlarging plant.

New Orleans, La.—Land Improvement.—Newcomb Realty Co., capitalized at \$125,000, will soon begin the development of the eight squares of ground on Napoleon avenue recently acquired. Several thousand dollars will be expended for sidewalk pavements, and when these are completed company will consider the erection of a number of residences; W. N. Grunewald, president; William F. Pinckard, vice-president, and Robert B. Jones, secretary-treasurer.

New Orleans, La.—Iron Works.—John H. Murphy is making improvements to iron works. Entire structure when completed will be three stories high. Machine shop will occupy first floor, with traveling crane in center, which will also reach erecting floor. Upper floors will be used to accommodate stock and for erection of lighter machinery; rear of building will be occupied by copper shop and brass foundry.

Ostrica, La.—Cannery.—Ostrica Planting, Canning and Manufacturing Co. has increased capital stock from \$50,000 to \$100,000. It will build factory, probably at Ostrica, for canning oysters, shrimp and, incidentally, fruit and vegetables; Dr. W. C. Smith, president; Gen. J. B. Levert, vice-president, and George W. Young, secretary-treasurer.

Rayne, La.—Rice Mill.—Ida Rice Mill will be rebuilt and enlarged. Completed building will be 96x240 feet, two stories; improvements to cost about \$10,000; capacity 400 barrels rice per day of 12 hours; architect, T. Dickinson; engineer, W. T. Case; proprietor, J. D. Marks.\*

Shreveport, La.—Construction.—Burt Construction Co. incorporated with \$10,000 capital stock to build levees and embankments by S. B. Hicks, R. E. Comegys and W. G. Burt.

St. Joseph, La.—Water-works.—City contemplates establishing water-works, obtaining supply either from the Mississippi river or from lake three miles distant. Information and suggestions are invited. Address Newell & Newell, offices in Bank Building.\*

#### MARYLAND.

Baltimore, Md.—Building Construction.—John Hiltz & Sons, builders, 3 Clay street, has been incorporated with capital stock of \$15,000 to construct buildings by John Hiltz, John P. Hiltz, Howard Hiltz, Philip R. Hiltz and John H. Richardson.

Baltimore, Md.—Suburban Development.—Gulford Park Co. has been incorporated with capital stock of \$250,000 to develop 300 acres of suburban property for residential purposes by Wm. H. Grafflin, 309 Vickers building, 225 East German street; Wm. A. Marburg, Thomas J. Hayward, Robert Garrett, H. Carroll Brown and Thomas W. Tongue.

Baltimore, Md.—Building Construction.—John Hughes, Jr., Company, 104 East Saratoga street, has been incorporated with capital stock of \$10,000 for general building construction and contracting by John H. Hughes, Jr., Kate R. Hughes, Harvey B. Robinson, Edna B. Robinson and Frank E. Welsh, Jr.

Baltimore, Md.—Druggists' and Barbers' Specialties.—J. Harry Lemmert Company has been incorporated with capital stock of \$5000 to manufacture druggists' and barbers' specialties by J. Harry Lemmert, American Building; John R. Uhler, Max Scherr, John Brandau and G. Ridgely Sappington.

Baltimore, Md.—Oyster and Fruit-packing Plant.—Torsch Packing Co., Charles H. Torsch, president, Fort avenue, Clement and Lawrence streets, will erect several additional buildings at its plant; warehouse,

three stories, 63x100 feet; brick with stone trimmings; mill construction; stable, two stories, 25.4x60 feet; brick with stone trimmings; John Freund, Jr., architect, Vansant Building, 210 East Lexington street. Charles L. Stockhausen, National Marine Bank Building, Gay and Water streets, is estimating on construction.

Baltimore, Md.—Suburban Development.—Forest Glen Park Co. has been incorporated with capital stock of \$100,000 to develop for residential purposes 140 acres of land north of Forest Park by Hanson H. Haines, Philadelphia, Pa.; Wm. H. West, A. Rozel Cathedral, 6 Abell Building, Baltimore and South streets; Edwin L. Tunis and Henry W. Williams.

Baltimore, Md.—Sewerage Construction.—Board of Awards, City Hall, will receive bids until May 15 for the construction of additional portions of concrete sewers of the storm-water system. Plans and specifications can be obtained from Sewerage Commission, Calvin W. Hendrick, chief engineer, 904 American Building, Baltimore and South streets, after April 22.\*

Baltimore, Md.—Trunk Factory.—D. F. Schmid, 1740 East Eager street, was the lowest bidder at \$12,493 and will probably receive contract for the construction of trunk factory at 307 North Calvert street for C. J. Dunn Company, 321 North Calvert street; four stories, 23x100 feet; brick with limestone trimmings; metal frames and sashes; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator; A. Lowther Forrest, architect, Professional Building, 330 North Charles street.

Baltimore, Md.—Coal and Coke.—The Queeneal Coal Co. has been incorporated with capital stock of \$10,000 to deal in coal and coke by John R. Buckingham, 244 North Fulton avenue; Thomas H. Bennett, 1609 West Baltimore street; Louis D. Sellman, William McGreevy and George Donoghue.

Baltimore, Md.—Metallic Beds.—The Baltimore Metallic Bed Co. has been incorporated with capital stock of \$20,000 to manufacture metallic beds by Asher C. Fisher, Lewis Goldstrom, 309 St. Paul street; Herman Goldstrom, 309 St. Paul street; Max Berman and S. John Lion.

Baltimore, Md.—Chemical Works.—German-American Chemical Co., Alleana and Ann streets, has sold its present buildings and will erect a new plant in another part of the city.

Baltimore, Md.—Hardware.—The Young Hardware Co. has been incorporated with capital stock of \$5000 to deal in hardware by G. Frank Young, 2017 Ashland avenue; Benjamin C. Young, 752 Carroll avenue N. E.; Samuel M. Laird, Benjamin Sheppard and C. Melville Clark.

Baltimore, Md.—Mineral-water.—Bedford Springs Mineral Co. has been incorporated to deal in mineral waters by Jordan Stabler, president, Eutaw and Madison streets; James E. Tate, Jr., secretary and treasurer, 301 Vickers Building, 225 East German street; Grier Hirsch, Henry B. Wilcox, Harry W. Rusk and George H. Miller.

Baltimore, Md.—Electrical and Mechanical Engineering.—McCay Engineering Co., 9 East Lexington street, has been incorporated with capital stock of \$15,000 to conduct business of electrical and mechanical engineering by H. Kent McCay, G. W. Denmead and Wm. W. Pyle.

Baltimore, Md.—Electrical Construction.—Maryland Electric Railways Co., John Wilson Brown, president, 400 Continental Building, has engaged J. G. White & Co., 34 Exchange place, New York, to supervise the electrification of Baltimore & Annapolis Short Line Railway. White & Co. have branch offices in Continental Building, Waldo H. Sawin being in charge. Twenty-five miles of railway is involved and additional trackage is comprised in the railway company's plans for future construction.

Hagerstown, Md.—Cold-store Door Manufacturing.—Jones Cold Store Door Co. incorporated with Thomas L. Rickard, president; J. V. Jamison, vice-president; J. V. Jamison, Jr., secretary-treasurer, and Marshall Wilson, general manager.

Hagerstown, Md.—Paving.—Board of Street Commissioners, Luther Peterman, clerk, will receive bids at Mayor's office until April 30 for material to be used in paving Potomac street. Total area to be paved is about 8387 square yards, and the estimated cost, according to report submitted by Street Superintendent Johnson, is \$14,135.50.\*

#### MISSISSIPPI.

Americus, Miss.—Lumber.—Milsted Lumber Co. incorporated with \$20,000 capital stock by M. Q. Milsted of Americus and Carl Georg, Mobile, Ala.



Arbo, Miss.—Lumber.—Rook Lumber Co. incorporated with \$6000 capital stock by D. A. McIntosh, J. W. Foster and others.

Belzoni, Miss.—Sawmills.—Belgrade Lumber Co. has purchased 20-acre mill and will build at once a band mill with resaw having daily capacity of between 40,000 and 50,000 feet. It is understood that machinery has been ordered and is being delivered. (Company was reported incorporated January 3 with capital stock of \$100,000 to take over, consolidate and operate on an enlarged scale the plants of Thompson & McClure and Crenshaw & Cathey.)

Canton, Miss.—Water-works and Electric-light Plant.—It is stated that city will expend \$100,000 in installation of water-works and electric-light system. (City was reported April 11 to issue \$35,000 of bonds for establishment of sewerage system.) O. S. Miller, Mayor.

Greenwood, Miss.—Supply Company.—Planters' Supply Co. incorporated with \$30,000 capital stock by Y. T. Eggleston, Greenwood; A. G. Lemore, Geren, Miss., and R. W. Baird, Fort Loring, Miss.

Gulfport, Miss.—Oil and Gas Wells.—Mississippi Oil & Gas Co. incorporated with \$20,000 capital stock by D. C. Acosta, J. L. Taylor and others.

Hattiesburg, Miss.—Engineering.—Huston Engineering Co. incorporated with \$25,000 capital stock by R. C. Huston, W. S. Fulton, M. J. Epley and others.

Hattiesburg, Miss.—Lumber.—Lindsley Lumber Co. incorporated with \$25,000 capital stock by A. L. Lindsley of Hattiesburg and A. Vizard, Jr., and E. Wood, New Orleans, La.

Hattiesburg, Miss.—Printing Plant.—Hattiesburg Printing & Publishing Co. incorporated with \$25,000 capital stock by H. A. Camp, M. McClanahan, A. J. Harris and others.

Hattiesburg, Miss.—Lumber.—Pine Belt Lumber Co. incorporated with \$50,000 capital stock by B. McClanahan, R. H. Bostwick and others.

Jackson, Miss.—Bakery.—Crescent Confectionery and Bakery Co. incorporated with \$30,000 capital stock by J. H. Wear, J. F. Johnson, Jr., N. W. Drummond and others.

Meridian, Miss.—Builders' Supplies.—M. R. Grant Builders' Supply Co. incorporated with \$75,000 capital stock by M. R. Grant, J. L. McLemore and others.

Meridian, Miss.—Churn Manufacturing.—American Churn Manufacturing Co. incorporated with \$16,000 capital stock by A. Pointevent, Marcellus C. Winders, C. F. Woods and W. L. Winders.

Natchez, Miss.—Paving and Sewerage.—City is advertising for alternate bids for paving approximately 22,500 square yards of street surface with sheet asphalt, bituminous macadam or vitrified brick; construction of necessary street curbing, estimated at 12,500 feet, and laying 6000 linear feet of storm sewers from 10 to 24-inch; bids to be returnable to City Clerk May 15.\*

Newton, Miss.—Planing Mill.—Newton Planing Mill incorporated with \$50,000 capital stock by W. D. McRave, D. L. Ragland and others.

Wesson, Miss.—Drugs.—Smith Drug Co. incorporated with \$10,000 capital stock by Howard Smith, J. A. Rowan and others.

#### MISSOURI.

Aurora, Mo.—Zinc and Lead Mines.—Birmingham Zinc & Lead Co., lately incorporated, has leased mines and mill and will engage in the production of zinc concentrates. J. R. Vail, Aurora, Mo., is general manager; J. B. Pryor, secretary and treasurer; offices, 206 Title Building, Birmingham, Ala. (Mentioned April 18 under Birmingham, Ala.)

Boonville, Mo.—Ice Plant and Laundry.—Boonville Ice & Laundry Co. incorporated with \$30,000 capital stock by W. L. Duck, A. A. Wallace, Lillian Duck and others.

Carthage, Mo.—Lead and Zinc Mines.—Lead & Zinc Royalty Co. incorporated with \$100,000 capital stock by J. V. Koontz, H. W. Putnam, H. W. Blair and others.

Dixon, Mo.—Cannery.—Farmers' Manufacturing Co., recently reported incorporated, will erect small sheds at cost of \$1500; product and capacity, tomatoes, 5000 three-pound cans per day. Officers: George S. Scott, president; P. W. Peterson, secretary; F. J. Holland, treasurer.

Centralia, Mo.—Cannery.—Centralia Canning Co. incorporated with \$4000 capital stock by W. A. Park, F. M. Eads, John E. Hinman and others.

Independence, Mo.—Plow Works.—Danielson Plow Co., manufacturing farm implements in Utah, has been reincorporated with \$800,000 capital stock and will establish plant

at Independence, manufacturing about 50 plows per day. About \$250,000 will be invested; W. D. Danielson, Logan, Utah, president; S. O. Benson, Independence, vice-president, and Joseph Quinney, Logan, Utah, secretary. (Utah Plow Co., W. D. Danielson, president, was reported April 18 as having purchased 17½ acres of land as site for plant.)

Joplin, Mo.—Lead and Zinc Mines.—Joplin-Tuscola Lead & Zinc Co. incorporated with \$50,000 capital stock by A. W. Wallace, W. W. Reaves, G. A. Denman and others.

Kansas City, Mo.—Shingle Mill.—W. R. Smith Shingle Co. incorporated with \$50,000 capital stock by J. E. Sampson, M. R. Smith, L. W. Wilson and others.

Kansas City, Mo.—Street Improvements.—J. Ray Samuel has contract at \$6,179.50 to macadamize portion of 73d street.

Kansas City, Mo.—Brewery.—John Gund Brewing Co. has purchased site 90x143 feet at \$18,000 and will erect distributing depot, expending about \$50,000.

Kansas City, Mo.—Iron Works.—Witte Iron Works Co. has awarded contracts for proposed new plant to manufacture gasoline and gas engines; main workshop will have 60,000 square feet of floor space; construction work will begin as soon as structural steel for building is delivered.

Malta Bend, Mo.—Lumber and Hardware.—Ballew Lumber & Hardware Co. incorporated with \$20,000 capital stock by Wm. O. Ballew, Otto S. Russell, Alice B. Russell and others.

Neosho, Mo.—Lumber.—Robinson-Davis Lumber Co. incorporated with \$45,000 capital stock by Charles S. Davis, R. H. Robinson, D. W. Tuder and others.

Sainte Genevieve, Mo.—White-lime Plant.—Sainte Genevieve Unique White Lime Co. incorporated with \$30,000 capital stock to manufacture and quarry lime, cement and stone by H. Ward Hicks, Gottlieb Behm and others.

St. Joseph, Mo.—Land Improvement.—Southern Missouri Land & Development Co. incorporated with \$12,000 capital stock by Hiram Mills, Ralph Hall, William A. Schrel and others.

St. Joseph, Mo.—Concrete Manufacturing.—North St. Joseph Concrete Post & Block Co. incorporated with \$5000 capital stock by William Ozenberger, Jester S. Ozenberger, Ernest Batcheler and others.

St. Joseph, Mo.—Feed Mill.—L. B. McCargar Feed Mill Co. incorporated with \$100,000 capital stock by Loren McCargar, Mabel McCargar, Frank L. Alexander and others.

St. Louis, Mo.—Chemical Plant.—Union Chemical Co. incorporated with \$80,000 capital stock by John J. Nally, Wm. L. Nichols, P. Staud and M. S. Bower to manufacture chemicals.

St. Louis, Mo.—Contracting.—O'Reilly, Callahan & Given Contracting Co. incorporated with \$38,000 capital stock by Charles P. O'Reilly, John E. Montague, John P. Farrington and others.

St. Louis, Mo.—Dental Appliances.—E. H. Angle Regulating Appliance Co. incorporated with \$5000 capital stock by E. H. Angle, A. H. Fuller, Anna Hopkins and others to manufacture dental regulating appliances.

St. Louis, Mo.—Lumber.—G. H. Barnes Hardwood Lumber Co. incorporated with \$45,000 capital stock by G. H. Barnes, M. D. Barnes and M. H. Sties.

St. Louis, Mo.—Printing Presses.—Berry Machine Co. incorporated with \$10,000 capital stock by Benjamin F. Berry, Edgar B. Walter B. and Louis B. B. Woodward.

St. Louis, Mo.—Oil Wells.—St. Louis Petroleum Co. incorporated with \$150,000 capital stock by George J. Kobusch, August E. Relle and Harry Luedinghaus, Jr.

St. Louis, Mo.—Woodworking Plant.—St. Louis Woodworking Manufacturing Co. incorporated with \$10,000 capital stock by Everett P. Maule, Jr., Ethelbert R. Maule and Charles O. A. Maule.

St. Louis, Mo.—Mechanical Devices.—Acorn Metallic Packing Co. incorporated with \$3000 capital stock by C. Charlton Perry, Earle C. Perry, Henry W. Lee and William J. Castanle to manufacture piston-rod mechanical devices.

St. Louis, Mo.—Planing Mill.—Consumers' Planing Mill Co. incorporated with \$20,000 capital stock by Casper J. Turellmeier, William H. Henschen and K. S. Houck to manufacture window frames, doors, blinds, etc.

Wardell, Mo.—Lumber and Box Plant.—De Lisle Lumber & Box Manufacturing Co. incorporated with \$10,000 capital stock by George Malone, Edward De Lisle, R. J. Miller and others.

Webb City, Mo.—Zinc Mining.—Royalty

Land & Mining Co., lately reported incorporated, will erect and equip building at cost of \$22,000 after plans by Wiginton & Milton and establish a 300-ton concentrating plant. Officers are R. A. Braznell and A. D. Hatten. Plant will produce zinc blend, about 30 tons lead and zinc concentrates.

#### NORTH CAROLINA.

Azalea, N. C.—Planing Mill.—McEwen Lumber Co. will install complete planing mill, expecting to have it in operation within 60 days; will handle hardwoods, white pine and North Carolina pine. Officers are: W. B. McEwen, president; P. R. Moale, vice-president; Herman Meader, treasurer; A. H. Cobb, secretary.

Carthage, N. C.—Road Improvements.—Moore county will vote May 28 on the issuance of \$300,000 of bonds for road improvements. Address County Commissioners.

Charlotte, N. C.—Land Improvement.—Charlotte Lumber & Land Co. incorporated with \$25,000 capital stock by M. Oglesby, J. H. Emery and T. C. Tooming.

Charlotte, N. C.—Planing Mill.—W. J. M. Finger will build planing mill.

Charlotte, N. C.—Cotton Mill.—Elizabeth Mills is reported as to double present equipment of 6000 spindles, and the increase will necessitate the erection of an additional building.

Charlotte, N. C.—Bag Manufacturing.—Charlotte Bagging Co. incorporated with \$10,000 capital stock to manufacture flour and burlap bags. It will operate 10 machines, each of which will produce 4000 bags per day. J. M. Lay, Florence, Ala., is president and sales manager and will superintend the installation of machinery; S. Westall, Dallas, Texas, vice-president, and C. R. Riddle, secretary-treasurer.

Charlotte, N. C.—Spindle Manufacturing, etc.—T. M. Castello will organize company to manufacture spindles, fliers, presses, steel rolls, etc.

Columbia, N. C.—Sawmill.—Tyrrell Manufacturing Co. will soon complete and put in operation its new circular sawmill on the Seppernong river, to be operated by water-power. The plant will manufacture all kinds of lumber and will have a capacity of between 20,000 and 30,000 feet, which will be increased as logging and shipping facilities are improved. B. F. Duncan, Sr., is interested.

Dillsboro, N. C.—Electric-light Plant.—Dillsboro & Sylva Electric Light Co. incorporated with \$10,000 capital stock by S. W. Enloe, J. C. Fisher, B. Lorillard and others.

Edenton, N. C.—Trestle.—McLean Contracting Co., 902 Maryland Trust Building, Baltimore, Md., has contract to erect pile and timber trestle over Albemarle sound for the Norfolk & Southern Railroad to connect Mackey's Ferry and Edenton; five and one-half miles long; four steel spans for motor boats and two drawbridges; require 14,000 piles and 4,000,000 feet of lumber. About \$500,000 will be expended.

Gastonia, N. C.—Cotton Mill.—Arlington Cotton Mills will erect a one-story 52x176-foot extension to present building, and when completed will rearrange its machinery, probably adding 3000 or 4000 spindles and cone-winders later on.

Greenville, N. C.—Tobacco Stemming.—J. N. Gorman, Richmond, Va., will remodel structure as stemming, equipping it with improved machinery.

Hillsboro, N. C.—Road Improvements.—Hillsboro township has voted affirmatively the issuance of bonds to macadamize public roads. Address The County Commissioners.

Lexington, N. C.—Paving.—Sealed proposals will be received by Mayor and Board of Commissioners until May 3 for macadamizing and curbing; Z. I. Walser, Town Clerk; Gilbert C. White, Durham, N. C., engineer.\*

Mooreville, N. C.—Cotton Mill.—Dixie Cotton Mills has begun erection of buildings and will install 5040 ring spindles and 2592 twisting spindles; will dye raw stock. This company reported organized in December, 1906, capital stock being \$100,000. E. W. Brawley is president.

Newbern, N. C.—Publishing.—Newbern Publishing Co. incorporated with \$25,000 capital stock and privilege of increasing to \$50,000 to publish morning paper; Wm. B. Blades, president; E. H. Meadows, vice-president, and Owen G. Dunn, secretary-treasurer and general manager.

North Wilkesboro, N. C.—Lumber.—Giant Lumber Co. incorporated with \$125,000 capital stock by J. M. Barnhardt and W. J. Pollner, Lenoir, N. C.; E. P. Whorton, Greensboro, N. C., and F. G. Harper, Patterson, N. C.

North Wilkesboro, N. C.—Cotton Mill.—M. K. Steele and N. F. Steele of Rockingham,

N. C., are reported as proposing to build cotton mill near North Wilkesboro, the project including a water-power development.

Ramsey, N. C.—Telephone System.—People's Telephone Co. incorporated with \$20,000 capital stock by E. C. Watkins, J. W. Parks, N. F. Marsh, H. B. Moore and others.

Rockwell, N. C.—Cotton Mill.—Details have been decided for company lately noted as to be organized by Paul Barringer of Mt. Pleasant, N. C. Title has not been stated, but mill building will be 100x200 feet in size, to be equipped with 5000 spindles for manufacturing yarns. Construction will begin soon.

Rose Hill, N. C.—Lumber and Veneer Plant.—Dixon Lumber & Veneer Co. incorporated with \$100,000 capital stock by William J. Hall and others.

Salisbury, N. C.—Cotton Mill.—Frank L. Robbins has leased building and will install 40 looms for manufacturing damask. Reported that machinery has been ordered.

Shelby, N. C.—Cotton Mill.—Belmont Cotton Mills, recently reported incorporated with capital stock of \$120,000, continues an established plant of 3000 spindles, to which it is proposed to add 1000 spindles. J. J. McMurtry is president.

Shelby, N. C.—Iron Works.—Cleveland Iron Works has changed name to the Shelby Machine & Supply Co. and increased capital stock from \$10,000 to \$100,000; J. F. Schenck, president.

Shelby, N. C.—Granite Quarry.—Fleming and Walter Ramsaur have purchased five and three-quarters acres of the "Flat Rock" property and will develop the granite quarries, manufacturing concrete blocks for building purposes; purchase price \$200.

Statesville, N. C.—Cotton Mill.—N. B. Mills and others will organize company with capital stock of \$10,000 to build cotton mill. Details now being considered.

Statesville, N. C.—Cotton Mill.—Reported that N. B. Mills will organize \$100,000 stock company to build cotton mill.

Trenton, N. C.—Wagon Works.—Trenton Buggy & Manufacturing Co. has been incorporated for the manufacture of buggies, carts, wagons and other vehicles. Capacity will be about 500 per year. Address Thomas D. Warren.\*

Vaughan, N. C.—Knitting Mill.—Vaughan Hosiery Co., reported incorporated with \$25,000 capital stock in December, has completed installation of equipment—58 knitting machines and complementary apparatus, dyeing and finishing plant, etc. R. S. Spiers is secretary-treasurer.

#### SOUTH CAROLINA.

Anderson, S. C.—Cotton Mill.—Reported that the Anderson Cotton Mills will provide for improvements to a portion of its mechanical equipment.

Bowman, S. C.—Coffin Factory.—W. C. Wise, E. N. Mittle and others will organize company to manufacture coffins and deal in coffin hardware and supplies; machinery has not been purchased.\*

Charleston, S. C.—Iron Works.—Riverside Iron Works will consider on May 7 an increase of common stock to \$40,000 and issuance of \$40,000 in preferred stock; G. W. H. Brugemann, secretary.

Conway, S. C.—Electric Lighting Franchise.—City offers electric-lighting franchise to parties who will install plant. For information address H. L. Buck, chairman of committee. (Lately mentioned.)

Greer, S. C.—Cotton Mill.—Franklin Mills will erect an additional building and install probably 5000 spindles; present equipment, 10,000 spindles and 288 looms.

Lancaster, S. C.—Cotton Mill.—John T. Stevens, Hazel Witherspoon, Charles D. Jones and Marion Witherspoon propose organizing company with capital stock of \$60,000 to build cotton mill.

Lancaster, S. C.—Cottonseed-oil Mill.—Lancaster Cotton Oil Co. is to be organized and capitalized at \$60,000. A three-press plant will be installed. Other arrangements are not yet complete.

Laurens, S. C.—Dam Construction.—Reedy River Power Co., N. B. Dial, president, has awarded contract to C. B. Willard & Co., Spartanburg, S. C., to construct dam across the Reedy river and build power-house at Boyd's Mill. Dam will be 30 feet high and 300 feet long, with spillway of 280 feet. Minimum horse-power will be 1500 and ordinary 3000. Upon the completion of dam power-house machinery will be installed for generating and transmitting electricity to Laurens and other points.

North Augusta, S. C.—Knitting Mill.—Paul B. Bush of North Augusta and W. J. Green of Blackville, S. C., lately reported as to build knitting mill, will erect three-story,

60x120-foot building to accommodate the machinery, investing probably \$15,000.

Rock Hill, S. C.—Cotton Mill.—Hamilton Carhart of Detroit, Mich., and others have incorporated Hamilton Carhart Cotton Mills, capitalized at \$500,000, to take over an established plant, to which, it is reported, will be added a dyeing plant.

Saluda, S. C.—Telephone System.—Saluda Telephone Co. has been organized and will install telephone system. W. L. Daniel is president and T. L. Edwards secretary and treasurer.\*

Spartanburg, S. C.—Water-power Electrical Plant.—The Electric Manufacturing & Power Co. is considering the development of Nesbitt's shoals on Tyger river, where it will erect a large electric plant.

Woodruff, S. C.—Cotton Mill.—Gray Yarn Mills has been organized with capital stock of \$175,000 to build mill reported in February as projected by W. S. Gray & Sons. Plant will have capacity of 30,000 spindles, but it is understood operations will begin with 10,000 spindles in position. Electricity will probably be used for power. J. E. Sirrine of Greenville, S. C., is engineer in charge. W. H. Gray is president.

Woodruff, S. C.—Water-power Electrical Plant.—A. B. Groce & Sons, reported in February as to develop Van Patton shoals water-power, have engaged Ladshaw & Ladshaw of Spartanburg, S. C., as engineers in charge. About 2000 horse-power will be obtained for transmission by electricity.

#### TENNESSEE.

Chattanooga, Tenn.—Conduit Construction. Chattanooga & Tennessee River Light & Power Co. will begin at once the construction of proposed conduits.

Chattanooga, Tenn.—Holst Manufacturing. Truxall-Palmer Manufacturing Co. has changed name to the Patten Manufacturing Co. and increased capital stock to \$50,000. It manufactures the Palmer holst, invented by Carl Palmer, operated either by electric or gasoline power; J. A. Patten, president; Z. C. Patten, Jr., vice-president; Carl Palmer, second vice-president, and George H. Patten, treasurer and general manager.

Clinton, Tenn.—Knitting Mill.—Magnet Knitting Mills is reported as increasing capital stock for the purpose of making enlargements.

Columbia, Tenn.—Shuttle Factory.—Dogwood Mills, lately mentioned as organizing, has chosen G. P. Webster manager and will engage in the production of dogwood and persimmon blocks for shuttles.\*

Dunlap, Tenn.—Coke Ovens.—Southern Steel Co. has awarded contract to the Oak Hill Marble & Stone Co., Birmingham, Ala., for building a battery of 400 coke ovens at Dunlap. About \$250,000 will be expended.

Fayetteville, Tenn.—Cotton Mill.—Reported that the Elk Cotton Mills will expend \$70,000 to erect 75x186-foot addition and install 10,000 spindles; present equipment, 6000 spindles.

Galloway, Tenn.—Sawmill.—Nickey-Dickson Lumber Co. incorporated with \$30,000 capital stock by S. M. Nickey, John S. Dickson, U. S. Lambert and W. E. Nickey; main office, Memphis, Tenn.

Henderson, Tenn.—Electric-light Plant and Street Improvements.—City will vote April 27 on the issuance of \$20,000 of bonds for purchasing and improving electric-light plant and grading and graveling business streets; Legislature recently passed an enabling act authorizing city to issue improvement bonds. Address The Mayor.

Huntingdon, Tenn.—Street Improvements. City will vote May 25 on the issuance of \$10,000 of bonds for graveling and making other improvements to streets. Address The Mayor.

Jefferson City, Tenn.—Paving.—City has awarded contract to M. L. Beeler for building 4000 feet of concrete sidewalk.

Lenoir City, Tenn.—Carworks.—It is reported the Lenoir Car Works will double the capacity of its plant and manufacture all kinds of wooden railroad equipment; company was reported April 4 as having increased capital stock from \$100,000 to \$350,000.

Memphis, Tenn.—Fireproof Doors and Windows.—W. F. Dunbar, secretary Memphis Fire Insurance Exchange, Tennessee Trust Building, is perfecting arrangements for the manufacture of fireproof doors and window shutters.

Memphis, Tenn.—Sawmill.—Barksdale-Kellogg Company incorporated, with W. R. Barksdale, president; W. R. Barksdale, Jr., vice-president, and C. M. Kellogg, general manager; company owns and operates sawmills at Cyclone and Iverness, Miss.

Memphis, Tenn.—Stove Works.—Pemit will soon be taken out for rebuilding of Mag-

nolia Stove Works plant recently reported burned.

Mt. Pleasant, Tenn.—Phosphate Mining.—Middle Tennessee Phosphate Co. incorporated with \$50,000 capital stock by T. C. Meadows, O. L. Dorck, J. A. Coble and others. It has secured a lease to mine 100,000 tons of rock from the Kittrell farm. Drier is being installed and a branch road has been constructed to the property.

Nashville, Tenn.—Can Factory.—American Snuff Co. will install machinery for manufacturing about 18,000,000 snuff cans per year; building in which this equipment will be installed has already been completed and is a two-story brick structure 70x110 feet. Jas. Harwood is manager.

Nashville, Tenn.—Lead Mines.—United States Lead & Smelting Co., recently reported incorporated, has elected J. H. Connor president; Tracey W. Pratt, Huntsville, Ala., vice-president; S. C. Robb, treasurer and general manager; I. Walter Edinger, Albany, N. Y., secretary; engineer in charge, James M. Hackett, New York, N. Y.; buildings and smelting plant will be erected at cost of \$50,000. Address 27 and 28 Stiger Building.

Newbern, Tenn.—Paving.—City has voted affirmatively the issuance of \$25,000 of bonds for street paving. Address The Mayor.

Oliver Springs, Tenn.—Knitting Mill.—A. H. Bowling and associates will establish knitting mill. Machinery not purchased.\*

Union City, Tenn.—Paving.—City has awarded contract to Troy Paving Co., Jackson, Tenn., for three miles of street graveling; cost about \$10,000. (Referred to March 28.)

#### TEXAS.

Alvarado, Texas.—Cotton Mill.—B. M. Sanson is interested in plans for organizing company to build cotton mill.

Beaumont, Texas.—Furniture Factory.—B. Deutser Furniture Co. will rebuild on an enlarged scale the mattress and upholstery factory recently burned at a loss of \$4000. About \$30,000 will probably be expended. B. Deutser is president.

Brownsville, Texas.—Water-works and Electric-light Plant.—City is considering the issuance of bonds for construction of water-works and electric-light plant. Address The Mayor.

Bryan, Texas.—Cottonseed-oil Mill and Fertilizer Factory.—Bryan Cotton Oil & Fertilizer Co. has elected H. O. Boatwright president, E. J. Fountain and W. C. Boyett vice-presidents, W. S. Wilson, Jr., secretary and J. Webb Howell treasurer and manager. (Company was reported organized March 28 to take over the Bryan Cotton Oil Co., valued at \$55,000, increase the plant's capacity from 45 to 65 tons and establish fertilizer factory.)

Burnet, Texas.—Telephone System.—Smart Telephone Co. incorporated with \$10,000 capital stock to construct and operate telephone system in Burnet and Lampasas counties by D. C. Reed, John M. Smart and C. C. Smart.

Dallas, Texas.—Rock Crushing.—Mexia Rock Crusher Co. incorporated with \$50,000 capital stock by E. G. Myers, F. M. Donnelly and Hans Helland.

Dallas, Texas.—Sewerage, Paving, etc.—State Fair of Texas will expend \$6000 for sewers, \$25,000 for paving, \$10,000 for new stables, \$1750 for live-stock department and \$800 for poultry department. A total of \$40,000 has been previously appropriated for permanent improvements.

Dallas, Texas.—Portland-cement Plant.—Southern States Portland Cement Co. incorporated with \$3,500,000 capital stock to manufacture and deal in Portland cement, crushed stone, etc., engage in mining, operate for oil and gas, etc., by William F. Cowhan, N. S. Potter and W. H. L. McCourtie of Jackson, Mich.; A. C. Stich, Independence, Kan., and W. W. Huntington, Indiana.

Denison, Texas.—Dairy Farm.—Denison Dairy Farm Co. incorporated with \$10,000 capital stock by Dan Tracy, J. T. Scott, G. L. Blackford and others.

Denton, Texas.—Electric-power Plant.—Denton Interurban Railway & Power Plant Co. incorporated with \$100,000 capital stock by H. M. Griffin, W. W. Wilson, R. J. Wilson and Newt. M. Lee.

Duncanville, Texas.—Cotton Gin.—Duncanville Farmers' Gin Co. incorporated with \$10,000 capital stock by F. C. Daniel, J. B. Casey, Robert Simpson and others to install four-stand 70-saw gin.

Eagle Lake, Texas.—Light and Gin Plant.—The Water, Light & Gin Co. incorporated with \$25,000 capital stock by B. L. Vineyard, Hayne Matthews, J. C. Semprez and others.

Eagle Pass, Texas.—Coal Mines.—Lamar Coal Co. incorporated with \$10,000 capital

stock by L. M. Lamar, J. W. Ritchie and U. J. Backus.

El Campo, Texas.—Rice Elevator.—Bailey Mill Co., Victoria, Texas, has secured contract to erect \$30,000 rice elevator (El Campo Rice & Elevator Co. was reported incorporated April 18 with \$25,000 capital stock by E. L. Correll and associates.)

El Paso, Texas.—Viaduct.—Southern Pacific Company and the El Paso & Southwestern system have agreed to build viaduct costing \$80,000 over the Octavio street crossing. W. Hood, San Francisco, Cal., is chief engineer of the former company and H. J. Simmons, El Paso, Texas, general manager of the latter.

El Paso, Texas.—Gas-machine Manufacturing.—Speer Improved Gas Machine Manufacturing Co. incorporated with \$50,000 capital stock by O. T. Ward, Francis G. Stiles, A. B. Shindler and others.

El Paso, Texas.—Portland-cement Plant.—Southwestern Portland Cement Co. incorporated with \$1,100,000 capital stock to establish Portland-cement plant, plans for which are now being prepared. The Courchesne cement plant has been secured, together with 900 acres of land near El Paso. It is stated that the company's intention is to sell cement to the Government for the construction of the \$7,000,000 Eagle dam. Proposed plant is expected to have a monthly capacity of 1400 barrels; C. Leonard, Los Angeles, Cal., president; Charles Boyetcher, Denver, Col., vice-president; A. Courchesne, vice-president and general manager; Felix Martinez, vice-president; J. F. Williams, treasurer, all of El Paso, and O. J. Binford, Los Angeles, Cal., secretary.

Fort Worth, Texas.—Furniture Factory.—Fort Worth Furniture Co. is having plans prepared by Sanguinet and Statfs for erection of several warehouses and buildings to be equipped as furniture factory; brick; mill construction.

Fort Worth, Texas.—Construction Company.—Northern Texas Realty & Construction Co. incorporated with \$30,000 capital stock by J. E. Head, T. L. Freyer and H. S. Hunter.

Fort Worth, Texas.—Lumber Plant.—Choctaw Lumber & Shingle Co. incorporated with \$25,000 capital stock by William Bohning, G. H. Bohning and S. M. Wheat.

Galveston, Texas.—Terminal Improvements. Galveston Terminal Co. (Rock Island-Frisco interests) has awarded contracts aggregating \$150,000 for the improvement of its terminal facilities: Bowers Southern Dredging Co. for 600,000 cubic yards of filling, bids for which were recently mentioned as having been received; Ed. Ketchum for building dikes around company's holdings in West End, to be constructed to hold the filling which will be pumped over the property by the Bowers Southern Dredging Co.; C. Hanson & Son for surfacing dump pile near 30th street, work on which is now proceeding by an original arrangement. It is proposed to have the terminals ready by September, and probably \$800,000 will be expended by that time in filling and construction work. Bids will soon be invited for erection of brick or stone two-story freight station 46 feet wide and 300 feet long at first, with provision for enlargement, 200 feet of which will be platform and warehouse room. Other improvements for which bids will soon be invited include the laying of 30 miles of steel tracks; cotton platform of concrete and brick, 200 feet long and 240 feet wide; roundhouse, repair shop, coal chute, employees' dwellings and icehouse for ice and refrigerator cars. (This company's proposed improvements referred to April 18 and previously.)

Georgetown, Texas.—Cotton Gin.—Farmers' Gin Co. incorporated with \$15,000 capital stock by C. J. Munson, H. E. Stromberg, W. A. Johnson and others.

Giddings, Texas.—Cottonseed-oil Mill.—Contract is said to have been awarded for new cottonseed-oil mill. Dr. J. A. Fields is interested.

Glen Rose, Texas.—Road Improvements.—A. L. Sadler and others are organizing company to build a modern roadway, and will operate passenger automobiles, which later will be wanted.\*

Goldthwaite, Texas.—Electric-power Plant. Geeslin & Co. have secured franchise to install electric-light and power plant and will operate 10-ton ice plant in connection.

Gonzales, Texas.—Oil Wells.—McMullen County Oil Co. has been organized to develop a tract of oil land in McMullen county recently purchased. W. H. Cardwell, J. D. Jones and J. E. Dawson are interested.

Hopkins County, Texas.—Coal Mining.—Lone Star Lignite Manufacturing Co. organized with \$200,000 capital stock to mine lignite in Hopkins county; N. Watelsky, president, and H. N. Watelsky, general man-

ager, both of Ladonia, Texas, and L. A. Allen, Cooper, Texas, secretary-treasurer; main offices in Dallas, Texas.

Houston, Texas.—Oil Wells.—Rocky Belt Oil Co. incorporated with \$5000 capital stock by S. A. Emerson, J. Dannenbaum, C. D. Reeves and others.

Houston, Texas.—Oil Wells.—Eagle Eye Co. incorporated with \$5000 capital stock by S. A. Emerson, S. P. Schenberger, C. D. Reeves and others.

Houston, Texas.—Oil Wells.—State Oil & Development Co. incorporated with \$4000 capital stock by F. P. Crow, A. J. Binz and others.

Houston, Texas.—Brass Works.—Twentieth Century Brass Works incorporated with \$5000 capital stock by Henry S. Fox, Jr., A. D. Daugherty and Louis Appelbaum.

Houston, Texas.—Drilling.—Coleman-Mennis Drilling Co. incorporated with \$5000 capital stock by W. L. Coleman, W. M. Coleman and G. W. Mennis.

Houston, Texas.—Land Improvement.—Gulf Construction Co. incorporated with \$50,000 capital stock by George F. Horton, J. O. Polhemus and J. B. House.

Jack County, Texas.—Gas and Oil Wells.—Reported that Robert Miller, S. W. Crosby, M. R. Haymaker, W. D. Green and Joseph Sultzer of the Amber Petroleum Co., Pittsburg, Pa., controlling about 60,000 acres of land in Jack county, are now actively engaged in drilling for oil, and oil will probably be piped to Fort Worth. Machinery has also been placed on the field for sinking gas wells, and operations will soon begin. If franchise can be secured, gas will be piped to Fort Worth for lighting and fuel purposes.

Lagrange, Texas.—Cotton Mill.—John Schumacher, George Lenert and associates will organize company to build cotton mill.

Mansfield, Texas.—Cotton-oil Mill.—Mansfield Cotton Oil Co., recently reported incorporated, will erect building 32x60 feet and seedhouse 50x100 feet; four presses will be installed with daily capacity of 20 tons; capital stock \$35,000. D. S. Rumph is president, J. J. Watson vice-president, J. H. Harbison secretary and H. D. Stevens manager and treasurer.\*

Maypearl, Texas.—Cotton Gin.—Farmers' Gin Co. will be incorporated to operate cotton gin. It will install a modern outfit of eight 70-saw capacity, costing about \$10,000; machinery is reported as purchased.

New Birmingham, Texas.—Iron Furnace, Iron Mines, etc.—F. W. Arnold and E. P. Yates of Hartford, Conn., have purchased the New Birmingham Iron Co. properties, including iron furnace, pipe works, 7000 acres of iron-ore land, 8000 acres of timber land, hotel and townsite. They propose to organize a new company to fully utilize these properties, remodeling the pipe works, remodeling the furnace and making it a 100-ton plant, installing a rolling mill, installing a cotton-tile plant and erecting a sawmill. (Recently mentioned.)

Omaha, Texas.—Cannery.—Omaha Canning Co. incorporated with \$7000 capital stock by H. B. Stephens, H. W. Glass and F. W. Farrier.

Palacios, Texas.—Cement-block and Brick Factory.—J. C. Mapes is completing arrangements to establish cement-block and brick factory.

Pine Land, Texas.—Lumber Mill.—Garrison-Norton Lumber Co. has erected and equipped sawmill, with other buildings, at cost of \$200,000; architect, Charles H. Williams; J. A. Kelly, president; John F. Adams, manager; product and capacity of plant, 140,000 feet yellow-pine lumber per day.

Port Bolivar, Texas.—Lumber.—Port Bolivar Lumber & Milling Co. incorporated with \$101,000 capital stock by C. Bellinger Ruliff, W. W. Honea, both of Beaumont, Texas, and A. D. Hall, Galveston, Texas.

Roxton, Texas.—Cotton Gin.—Roxton Gin Co. incorporated with \$8000 capital stock by J. M. Lattimore, G. D. Terrell and A. T. Wight.

Rusk, Texas.—Iron Furnace and Mines, etc. Rusk Iron Co., recently incorporated with capital stock of \$250,000, acquires and will operate the Star and Crescent Iron Furnace. It will undertake extensive improvements, including installation of electric-light plant, construction of another large reservoir, laying heavier rails and providing a larger locomotive for the ore-carrying railway and ultimately installing Whitwell hot-blast stoves in place of present equipment, etc. Officers of the company: W. H. Oatley, president; E. P. Yates, vice-president, Hartford, Conn.; Messrs. Oatley, Yates, F. W. Arnold, Hartford, Conn.; I. C. Daniels, also of Hartford; Amos Mitchell of Beaumont, Reckford Bros. of Rusk, W. Frank Knox and J. S. Wightman, also of Rusk, directors. (Recently referred to.)



San Antonio, Texas—Mining.—Golondrina Mining Co. incorporated with \$10,000 capital stock by W. C. Moore, E. R. Richardson, W. C. Manlove and others.

Sanger, Texas—Cotton Gin.—Farmers & Merchants' Gin Co. organized with \$10,000 capital stock by B. D. Jones, E. L. Berry, W. O. Taylor and others.

San Antonio, Texas—Oil Wells.—Jourdan Campbell Oil Co. incorporated with \$5000 capital stock by J. N. Groesbeck, Jourdan Campbell, W. C. Moore and others.

San Antonio, Texas—Bridge.—San Antonio & Aransas Pass Railway contemplates making improvements on its line between San Antonio and Houston, to include the construction of drawbridge over the Brazos river; W. M. Hobbs, San Antonio, general manager.

San Antonio, Texas—Oil Wells.—Christi Oil Co. incorporated with \$7500 capital stock; W. C. Moore, president; N. N. Groesbeck, vice-president, and T. H. Zanderson, secretary-treasurer.

San Antonio, Texas—Mining.—Santa Cruz Mining Co. incorporated with \$30,000 capital stock by Henry Small, Charles Bastion, C. Fahey and others.

Somerville, Texas—Fuller's-earth Development.—Southern Fuller's Earth Co. incorporated with \$100,000 capital stock by W. N. Mayfield, Sr., John M. Mathis, M. E. Foster and others; branch office in Houston, Texas.

Sulphur Springs, Texas—Cotton Mill.—John Hargrove, Phil H. Foscoe and others will organize company to build cotton mill. It is reported they are now estimating on cost of machinery.

Teague, Texas—Bottling Works.—A bottling company has been organized by J. R. Crittenden, H. O. Gossett, I. B. McFarland and others.

Wellington, Texas—Telephone System.—Union Telephone Co. incorporated by J. T. Littlefield, A. Burger, H. A. Jones and others.

Wortham, Texas.—Electric-light Plant.—Wortham Fire & Light Co. recently reported as installing electric-light equipment, will erect and equip buildings at cost of \$3000 to \$10,000; architect, W. F. Pittman; building to be of brick, 50 to 100 feet; 750 lights.\*

#### VIRGINIA.

Alexandria, Va.—Engineering and Manufacturing.—Murray Engineering & Manufacturing Co. incorporated with \$20,000 capital stock; C. E. Wood, president; E. L. Cockrell, vice-president; W. B. Murray, secretary, and H. J. Staley, treasurer; all of Washington, D. C.

Amelia County, Va.—Mica Mines.—Corson Mica Co., lately reported incorporated, will erect and equip buildings at cost of \$4000; size 30x40 feet; engine and mill room. Officers have been elected as follows: F. W. Corson, president and manager; H. A. Benson, vice-president; L. F. Saithe, secretary; E. R. Sampson, treasurer. E. R. Sampson has plans for building; principal address at present, Waymart, Pa.\*

Blackstone, Va.—Excelsior Works.—Southern Excelsior Co. incorporated with \$15,000 capital stock; Freeman Epes, president; T. Freeman Epes, vice-president, and Irby Moncure, secretary-treasurer.

Charlottesville, Va.—Lumber.—Piedmont Lumber Corporation incorporated with \$25,000 capital stock; Herbert Wingfield, president; P. B. Oberdorfer, vice-president, and H. A. Dinwiddie, secretary-treasurer.

Clifton Forge, Va.—Ice-storage Building.—Chesapeake & Ohio Railroad has awarded contract to the Allegheny Construction Co. for erection of building for storing ice at Dry Creek; 33x66 feet; storage capacity 750 tons; foundation to be piled; cost \$6000.

Covesville, Va.—Cider Plant.—Covesville Cider Co. incorporated with \$25,000 capital stock; J. G. Martin, president; H. S. Martin, vice-president, and J. J. Boaz, secretary-treasurer.

Danville, Va.—Gas Plant.—Carr-Murray Manufacturing Co., Fort Wayne, Ind., has contract at \$8600 for exhausters, condensers, scrubbers and purifiers for new gas plant, being erected under the supervision of Frank Talbot, superintendent city water, gas and electric-light department, and City Engineer Magruder, at a cost not exceeding \$40,000.

Galax, Va.—Handle Works.—Galax Handle Works incorporated with \$20,000 capital stock by W. P. Swartz, president; E. R. Brunk, vice-president, and Henry P. Swartz, secretary, treasurer and general manager.

Newport News, Va.—Amusements.—Crystal Mirror Maze Co. incorporated with \$7500 capital stock to conduct amusement enterprise at Jamestown Exposition; J. R. Bagby, president; E. L. Frye, vice-president, and R. C. Petzold, secretary-treasurer.

Norfolk, Va.—Land Improvement.—Lindenwood Company incorporated with \$20,000 capital stock; O. D. Jackson, president; L. M. Smith, vice-president, and Willard R. Cook, secretary-treasurer.

Norfolk, Va.—Novelties.—Twentieth Century Novelty Co. incorporated with \$6000 capital stock; F. S. Anderson, president; P. Robertson, secretary, and Davis Jordan, treasurer.

Norfolk, Va.—Townsite.—Princess Anne & Norfolk Land Co., capitalized at \$150,000, has purchased 100 acres of land to be improved and converted into a townsite to be known as Glenn Rock; Paul R. Howard, president; A. Brinkley, vice-president, and J. P. Andre Mottu, secretary-treasurer.

Norfolk, Va.—Sewerage.—Bids will be received at office of J. D. Hank, secretary of local board of Seventh ward, 429-430 Law Building, Norfolk, Va., until April 24 for hauling, distributing and laying water pipes in Seventh ward, Norfolk, as preliminary to introduction of sewerage system.\*

Norfolk, Va.—Roofing and Contracting.—Southern Roofing & Contracting Co. incorporated with \$10,000 capital stock; Edgar O. Young, president; W. H. Mullikin, vice-president and general manager, and H. L. Barlow, secretary-treasurer.

Norfolk, Va.—Amusements.—Automatic Amusement & Vending Co. incorporated with \$15,000 capital stock; L. E. Dodge, vice-president, and H. A. Hertz, secretary-treasurer.

Petersburg, Va.—Paving.—Bids will be received by Sewer, Sidewalk and Water-mains Committee at office of R. D. Budd, City Engineer, 35 West Tabb street, until May 2 for constructing about 26,000 square yards of roadway pavement on different streets.\*

Richmond, Va.—Electric-light Plant.—City Council has authorized the construction of municipal electric-light plant. (City was reported January 3 as considering the issuance of \$340,000 of bonds for construction of electric-light and pumping station.) Address The Mayor.

Roanoke, Va.—Blacksmith Shop.—A. E. Tucker will build brick blacksmith shop 25x100 feet.

Roanoke, Va.—Lumber Plant.—Exchange Lumber Co. will erect three-story building at cost of \$30,000; size 50x90 feet; mill construction; steam heating; electric and gas lighting; one electric and one hand elevator; bids to be opened within a few days; architect, H. H. Huggins.

Salem, Va.—Glass Plant.—Charles Armstrong, representing the H. L. Dixon Company, Pittsburgh, Pa., will supervise the laying off of grounds and erection of glass plant to be operated by the Catawba Valley Railway & Mining Co., Edward S. Barnitz, treasurer and general manager. Plant will have daily capacity of 240 gross of pint bottles and will cost about \$35,000. Buildings will be constructed of wood and corrugated iron. (Referred to February 14.)

Smithfield, Va.—Cannery.—Smithfield-Battery Park Canning Co., reported incorporated last week, will establish plant for canning, tomatoes principally, from 75 to 100 acres of land. Building has been secured and suggestions as to growing products and equipment of machinery are wanted. A manager will be wanted. Address B. F. Latimer, president.\*

#### WEST VIRGINIA.

Bluefield, W. Va.—Wagons, Implements, etc. Bluefield Implement Co. incorporated with \$50,000 capital stock by E. L. Bailey, J. W. Ruff, C. B. Hancock and others.

Bluefield, W. Va.—Publishing.—Bluestone Publishing Co. incorporated with \$25,000 capital stock by E. L. Bailey, A. H. Sand, D. M. Enslay and others.

Charleston, W. Va.—Flour and Feed Mill.—Jack Carr will soon begin the erection of proposed flour and feed mill; four stories with basement; brick; capacity, 75 barrels of flour and 100 tons of feed daily; cost of entire plant about \$20,000.

Charleston, W. Va.—Coal Mines.—The Big Coal Co. is completing the installation of equipment to provide for the development of its Dorothy coal mines, thus beginning the development of its 67,000 acres of coal land. John H. Jones of Pittsburgh, Pa., is president.

Charleston, W. Va.—Bridge.—Kanawha Bridge & Terminal Co. has concluded contract with D. Minatti for construction of abutments and piers of the steel-truss bridge over the Kanawha river from West to South Charleston. Plans have been prepared by Harry Frazier, Louisburg, N. C., assisted by M. W. Venable, Richmond, Va. Structure will be 40 feet broad, with 20-foot roadway, walkway and space for trolley and railroad tracks. Work will be completed about October 15. (Kanawha Bridge & Terminal Co. was reported February 7 as organized with

\$300,000 capital stock by J. E. Chilton and others.)

Charleston, W. Va.—Land Improvement.—Edgewood Improvement Co. incorporated with \$25,000 capital stock by John A. Thayer, H. L. Wehrle, A. S. Guthrie and others.

Elkins, W. Va.—Electric Plant.—Elkins Electric Railway Co. has had plans prepared for erection of power plant to supply power and lights in Elkins, expending about \$100,000. Jefferson Lumber Co. has contract to furnish ties to be used in constructing proposed extension.

Fairmont, W. Va.—Coal Mines.—John J. Buttermore and J. M. Herpleck, Connellsville, Pa., have purchased for development a tract of coal land along the Monongahela river between Fairmont and Morgantown, W. Va.; battery of coke ovens will be built.

Fairmont, W. Va.—Telephone System.—Consolidated Telephone Co. awarded contract to Kellogg Switchboard Supply Co., Chicago, Ill., for new switchboard and telephones to be installed at Fairmont, and to Dean Electric Co., Elyria, Ohio, for new equipment at Grafton, W. Va. The company proposes to make extensive improvements at Fairmont and Grafton, replacing present switchboards and telephones by central-energy equipment. It is proposed to expend about \$20,000 in Fairmont and \$10,000 in Grafton. Main office in Manley Building, Fairmont.

Franklin County, W. Va.—Timber-land Development.—Roaring Creek Lumber Co., reported incorporated last week, has purchased 100 acres of timber land in Randolph county and is installing two sawmills; capacity not stated; machinery has been purchased. W. A. Porter is president, H. B. Hartwick secretary-treasurer and E. L. Shirley general manager, all of Clearfield, Pa.

Grantsville, W. Va.—Bridge.—Grantsville Bridge Co. incorporated with \$20,000 capital stock by A. G. Miller, S. T. Stunp, Howard Waldo and others.

Harper's Ferry, W. Va.—Onyx Development.—B. B. Miller, Martinsburg, W. Va., will organize company to develop onyx quarries in Southwestern West Virginia. Mr. Miller is interested in the Columbus (Ohio) Onyx Co. and controls about 142 miles of onyx lands.

Harrison County, W. Va.—Coal Mines.—Fayette (Pa.) county parties have organized company with \$20,000 capital stock for the development of 200 acres of coal land in Harrison county, about 18 miles north of Clarksburg, W. Va. It is contemplated to build railroad siding and large tipples and to ship between 500 and 1000 tons of coal per week. It is reported that E. D. Field, Fayette City, Pa., represents the company.

Hinton, W. Va.—Publishing.—Independent-Herald Publishing Co. incorporated with \$10,000 capital stock by W. H. Sawyers, H. Ewart, P. K. Litsinger, T. H. Lilly and others.

Huntington, W. Va.—Gaspipe Lines.—It is reported that the Columbia Oil & Gas Co. will begin in May the construction of its proposed 20-inch pipe line to convey gas from the West Virginia gas fields to Cincinnati, Ohio, about \$1,000,000 to be the cost of the piping and construction work. Two more 20-inch pipe lines are understood to be a part of the plans. Compressors are to be installed in the gas fields, and this will necessitate extra-strong piping for the pipe lines. This company was previously referred to as organized, etc. It can be addressed care of F. B. Enslow, director.

Logan, W. Va.—Land Improvement.—Browning Land Co. incorporated with \$75,000 capital stock by G. F. Browning, S. H. Brooding, R. L. Shrewsbury and others.

Millville, W. Va.—Crusher-house.—Standard Lime & Stone Co., 524 Equitable Building, Baltimore, Md., will rebuild crusher-house recently reported burned; size of new building about 40x70 feet; cost \$8000; product and capacity, crushed dolomite, 10 cars daily; architect, C. N. Collins; engineer, M. M. Millard; president, Daniel Baker; secretary and treasurer, J. H. Baker.

Monongah, W. Va.—Graphite Plant.—Consolidated Graphite Co., recently reported incorporated, will erect building and establish plant for the production of graphite; building to be 60x100 feet, plus additions; cost \$30,000; capacity 30 to 100 tons to go through refinery in 24 hours; officers, F. V. Ruchman, president; James A. Reidy, secretary and treasurer.

Morgantown, W. Va.—Heating Plant.—Contracts for the completion of central heating plant for buildings at West Virginia University were awarded as follows: American Warning & Ventilating Co., Pittsburgh, Pa., at \$25,000, for supplying all heating machinery, constructing tunnel, connecting pipes and fitting plant, besides building sewer from plant to river; Zevely-Casto

Construction Co., at \$11,440, for constructing the plant; building will be completed by September 15 and heating machinery installed by October 1; engineer, Prof. F. L. Emory; president of university, D. B. Purlinton. (Referred to March 28.)

New Martinsville, W. Va.—Oil and Gas Wells.—Sure Oil & Gas Co. incorporated with \$500,000 capital stock by I. D. Morgan and E. O. Kelfer of New Martinsville, H. L. Smith, Smithfield, W. Va., and others.

Parkersburg, W. Va.—Publishing.—Parkersburg Daily Truth Co. incorporated by J. Garger, W. D. Peters, T. W. Mannion and others.

Parkersburg, W. Va.—Woodworking Machinery.—Mr. Oakley of the Oakley & Jansen Machine Co. is organizing company to be incorporated for the manufacture of woodworking machinery.

Princeton, W. Va.—Paving.—City has voted affirmatively the issuance of \$23,000 of bonds for street paving. Address The Mayor. (Referred to March 28.)

Romney, W. Va.—Water-works and Sewerage.—Board of regents of Schools for the Deaf and Blind will receive sealed bids until June 19 for performing all labor and furnishing material for the following: Water main, sewer about 5000 feet long, concrete reservoir of 107,000 gallons capacity, water-piping, etc. W. M. Straus, H. B. Lewis and D. S. Pettigrew compose committee in charge.\*

Williamson, W. Va.—Brick Plant.—Peerless Brick Co., lately reported incorporated, will establish plant for the manufacture of building brick. Additional dry-house will be erected; cost of buildings and equipment, \$20,000; capacity 30,000 brick per day; A. Harris, president; E. S. Juhling, general manager; T. B. Jones, superintendent; A. C. Pinson, secretary and treasurer.\*

#### INDIAN TERRITORY.

Caddo, I. T.—Oil and Gas Wells.—Caddo Oil & Gas Co. has been organized with \$300,000 capital stock to develop a large area of oil lands recently leased; W. F. Clower, president and general manager; H. W. Diefenderfer, vice-president, and A. F. Manning, secretary-treasurer.

Chickasha, I. T.—Cotton Compress.—Texas Compress Co. will rebuild plant lately burned; D. C. Anderson, Fort Worth, Texas, director and traveling manager.

Comanche, I. T.—Water-works.—City has voted affirmatively the issuance of \$25,000 of bonds to build water-works. (Referred to March 14.) Address The Mayor.

Hugo, I. T.—Oil and Gas Wells.—Hugo Oil & Gas Co. of Hugo and Morrison, O. T., incorporated with \$100,000 capital stock by Thomas Hardison and W. B. Gill of Hugo and E. C. Ryan of Morrison.

Madill, I. T.—Water-works.—Bids will be received by Mayor and City Council until May 7 for purchasing all machinery and supplies required in constructing complete water-works system. Specifications can be had by addressing the O'Neil Engineering Co., Dallas, Texas.\*

McAlester, I. T.—Gas Wells.—Okindian Gas Co. incorporated with \$50,000 capital stock to develop gas wells; Arthur D. Lord, president; Charles Van Sickle, vice-president, and Edwin J. Streeter, secretary-treasurer.

Tishomingo, I. T.—Water-power Electrical Plant.—S. C. Treadwell and associates have located dam, had plans prepared for construction and will build plant for developing power to be transmitted by electricity.

#### OKLAHOMA TERRITORY.

Alva, O. T.—Laundry.—Alva Steam Laundry Co. incorporated with \$5000 capital stock by William R. Marling and H. S. and A. M. Noah.

Capron, O. T.—Telephone System.—Capron Telephone Co. incorporated with \$7000 capital stock by Fred J. Fash, W. D. Anderson, Joseph T. Fash, Charles E. Curran and others.

Dover, O. T.—Telephone System.—Banner Telephone Co. incorporated by A. L. Mayes, L. Q. Bond, Fred Schilde and others.

Driftwood, O. T.—Telephone System.—Citizens' Telephone Co. incorporated with \$3500 capital stock by H. J. Kragh, J. W. Gass, John Angels and others.

Edmond, O. T.—Publishing.—Enterprise Publishing Co. incorporated with \$3000 capital stock by George C. Burns and C. W. Gould of Edmond, H. S. Gilliam and W. H. Hampton of Oklahoma City, O. T., and others.

Frederick, O. T.—Cottonseed Oil Mill.—Kiowa Cotton Oil Co. incorporated with \$50,000 capital stock by F. Y. Goldsborough, Frederick R. K. Wooten, Chickasha, I. T.; W. A. Wilhelm, Hobart, O. T.; A. Norris, Shawnee, O. T., and others.

## BUILDING NOTES.

\* Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery, Proposals and Supplies Wanted."

Guthrie, O. T.—Oil Wells and Townsite.—Interstate Oil & Townsite Co. incorporated with \$1,000,000 capital stock by P. M. Morrill, W. C. Brady, J. G. Harris, J. H. Case, all of Hobart, O. T., and others.

Lawton, O. T.—Cotton Compress.—Texas Compress Co. is reported to erect cotton compress, investing about \$75,000; D. C. Anderson, Fort Worth, Texas, director and traveling manager.

Mooreland, O. T.—Grain and Supplies.—Mooreland Grain & Supply Co. incorporated with \$10,000 capital stock by F. J. Knittel, John J. Bouquet, W. H. Stahl and others.

Oklahoma City, O. T.—Photo-print Manufacturing.—Photo Print Manufacturing Co. incorporated with \$100,000 capital stock by F. D. Jones, Calvin Ellis and O. T. Gregory.

Oklahoma City, O. T.—Suburban Development.—Levy Bros., Harry Gerson and W. F. Young have purchased at \$60,000 a 240-acre tract of land, and it is understood that a syndicate capitalized at about \$1,000,000 will be formed with a view to platting and improving the property as residence district, providing parks, paving streets, constructing boulevards, etc.

Oklahoma City, O. T.—Telephone System.—Twin Creek Telephone Co. incorporated with \$50,000 capital stock by P. J. Parasek and William P. and N. J. Reding.

Oklahoma City, O. T.—Printing Plant.—Western Newspaper Union (main office, Omaha, Neb.) will erect building, six stories, 100x100 feet; brick, steel and reinforced concrete; cost \$80,000. Contract will be awarded within a few days. It is stated that company will increase its equipment for local plant as soon as this new structure is completed; Charles E. Verity, local manager.

Oklahoma City, O. T.—Cotton Chopper.—Oklahoma Cotton Chopper & Machine Co. incorporated with \$30,000 capital stock by H. A. Markham, Oklahoma City; J. V. Morrow, Shawnee, O. T., and W. H. Bruner, Guthrie, O. T.

Perry, O. T.—Mining.—Eastern Star Mining Co. incorporated with \$50,000 capital stock by Alfred H. Boles, Thomas D. Casey and H. P. Wetzel.

Roll, O. T.—Townsite.—Roll Townsite Co. incorporated with \$22,500 capital stock by A. W. Giffin, J. T. McDougal, John F. Curtis and others.

Warwick, O. T.—Cotton Products.—Warwick Cotton Products Co. has been incorporated with capital stock of \$100,000 by Messrs. J. W. Stonebraker, Henry Rausha, J. I. Messner and H. W. Preuss.

## BURNED.

Beaumont, Texas.—B. Deutser Furniture Co.'s mattress factory; loss \$4000; building owned by G. O. B. Millard.

Duncanville, Ala.—D. O. Parker's sawmill and cotton gin.

Fairhope, Ala.—Fairhope Improvement Co.'s planing mill; William Stimpson, manager.

Filmore, Ala.—Poston Mill Co.'s sawmill, owned and operated by George R. Crossland and James R. Hodgen; loss about \$10,000.

Fivay, Fla.—Arlpeka Sawmill Co.'s plant; loss \$150,000.

Hutto, Texas.—Robert Town's cotton gin.

Mount Washington, Md.—George Dobbin Penniman's residence; loss \$25,000.

Nashville, Tenn.—Building occupied by Montgomery & Co. and owned by Norman Kirkman; loss on structure about \$15,000.

Petersburg, Va.—Feild Bros.' planing mill; loss \$3000.

River Falls, Ala.—Horseshoe Lumber Co.'s lumber plant; loss \$75,000.

Spring Hope, N. C.—Owens' Hotel, etc.; total loss \$65,000.

Trenton, Ky.—Trenton Lighting plant; loss about \$3000; William Duncan, manager.

Wool Market, Miss.—J. H. Davis & Co.'s plant; loss \$22,000.

## Important Contract for Paint.

Extensive construction work under way at Baltimore includes the erection of piers and warehouses at Locust Point for the Baltimore & Ohio Railroad. The Baltimore Bridge Co. of Baltimore, Md., has a big contract in this connection. It has just placed an important contract for paint to be used for the preservation of the sills and the flooring in the warehouse, the sills being imbedded in sand. There will be about 300,000 feet of lumber to be treated. Teredo-proof paint will be used, as its moisture-proof and preservative qualities are recognized as commensurate with the requirements of the work in question. This paint is manufactured by the Teredo-Proof Paint Co., 17 Battery place, New York.

Adairville, Ky.—Bank Building.—First National Bank will erect bank building at cost of \$4400; concrete construction; size 25x54 feet; architect, J. M. Dale; contractors, J. M. Dale, Russellville, Ky., and Kentucky Stone & Brick Co., Russellville, Ky.; contracts let, with exception of galvanized-iron work.\*

Alexandria, La.—City Hall.—City will receive plans until April 29 for proposed city hall; 80x80 feet in center of square, 213 feet 4 inches by 213 feet 4 inches; ground to be terraced to height of four feet above sidewalk grades; four walks leading to center of each of four sides of building and walk adjoining and surrounding structure to be paved; two stories, with basement; roof plan to include dome centrally located; plumbing; low-pressure steam heat; electricity; maximum cost, inclusive of improving grounds, \$75,000, of which not more than \$65,000 will be expended on building. Estimates must include total cost of building, with heat, lights and plumbing. Right is reserved to reject any and all plans. (Referred to March 7.) W. B. Turner, Mayor.

Alexandria, La.—Library.—City is planning the erection of library building. Site has been chosen and plans and specifications will be wanted as soon as preliminaries are arranged; W. B. Turner, Mayor.

Alexandria, Va.—Building.—Methodist Episcopal Church South has accepted plans and specifications by W. Leon Clark for the young people's building, to be known as the "George R. Hill Memorial"; cost \$10,000. Bids for the work will be received at once.

Amarillo, Texas.—Elks' Home.—B. P. O. Elks No. 923 are contemplating the erection of two-story building with basement; brick; about 50x75 feet; cost \$20,000; steam heating; electric lighting; bids to be opened soon. Would be pleased to hear from any architect or contractor. Address Dennis Zimmermann, secretary B. P. O. E.

Asheville, N. C.—Federal Building.—Government will build an extension to postoffice, as recently mentioned, and contract has been awarded to H. A. Brown & Co.; estimated cost, \$62,000; local architect to be selected; building will have modern electrical equipment, electric and gas lighting and steam heating; work to begin at early date, to be completed by June 1, 1908.

Athens, Tenn.—Bank Building.—Athens Bank & Trust Co. will erect bank building; ordinary construction; 21x62 feet; electric lighting; cost \$3500. Address J. W. Bayless, president.

Atlanta, Ga.—Theater.—Atlanta Theater Co. incorporated with \$51,000 capital stock and privilege of increasing to \$100,000 to erect and operate theaters, etc., by L. De Givie of Atlanta and Jake Wells and W. G. Neal, Richmond, Va. (Jake Wells was reported March 28 to erect \$75,000 theater.)

Atlanta, Ga.—Residence.—Henry Potts contemplates erecting residence to cost \$20,000.

Atlanta, Ga.—Apartment-house.—W. G. Raoul is reported to erect apartment-house costing about \$80,000.

Baltimore, Md.—Car Barn.—The United Railways & Electric Co., Wm. A. House, president, Continental Building, Baltimore and Calvert streets, has commissioned Baldwin & Pennington, architects, Professional Building, 330 North Charles street, to prepare plans and specifications for car barn to be erected at corner Fulton and Druid Hill avenues; one story, 575 feet frontage; reinforced-concrete construction; sprinkler system; metal frames and sashes; electric wiring and fixtures; sanitary plumbing; heating system; steel rolling doors.

Baltimore, Md.—Dwelling.—Wm. C. Applewhite, Baltimore Bargain House, 210 West Baltimore street, has awarded contract to John S. Moke, Hoffman Building, 11 East Lexington street, for the construction of three-story brick dwelling with electric wiring and fixtures and steam-heating system at corner St. Paul and 30th streets to cost \$8000; Jacob F. Gerwig, architect, Hoffman Building.

Baltimore, Md.—Theater.—Telfair W. Marriott, 323 North Charles street, represents clients who are contemplating the erection of large theater building.

Baltimore, Md.—Dwellings.—McIver & Piel, builders, Builders Exchange Building, 2 East Lexington street, will erect 92 two-story brick and stone dwellings with electric wiring and fixtures and hot-water heating systems on Arunah avenue.

Baltimore, Md.—Suburban Development.—Eastern Land Co., Hartford, Conn., has purchased 32 acres of land at Windsor Hills and will develop for residential purposes. T. A. Biays Company, engineer, 14 Clay street, Baltimore, Md., will lay out the building lots, and Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street, Baltimore, Md., will prepare plans for dwellings to be erected.

Baltimore, Md.—Office Building.—Rice Bros., bakers, 312-320 North Gay street, will erect three-story brick office building 40x40 feet. C. L. Stockhausen, Gay and Water streets, and James F. Farley, Franklin Building, Baltimore and North streets, are estimating on construction; Owens & Slaco, architects, Continental Building.

Baltimore, Md.—Warehouse.—Central Metal Supply Co., 609-611 East Lombard street, has awarded contract to George Bunnecke & Sons, 305 St. Paul street, for the construction of warehouse; three stories, 56x59 feet; brick with stone trimmings; structural iron and steel; A. S. Watts, architect, Pikesville, Md.

Baltimore, Md.—Railway Station.—The Washington, Baltimore & Annapolis Railway Co., Maryland Trust Building, Calvert and German streets, has commissioned Simonson & Pietsch, architects, American Building, to prepare plans and specifications for railway station to be erected at corner Park avenue and Liberty and Marlon streets; two stories; 75x100 feet; brick with stone and ornamental terra-cotta trimmings; electric wiring and fixtures; sanitary plumbing; heating system.

Baltimore, Md.—Y. M. C. A. Building.—As all bids submitted for the construction of Y. M. C. A. building at corner of Cathedral and Franklin streets were too high, it is probable that revised bids will be taken; Joseph Evans Sperry, architect, Calvert Building, Fayette and St. Paul streets.

Baltimore, Md.—Apartment-house.—Charles E. Blaney of New Jersey will erect 10 to 14 story apartment-house. Mr. Blaney is represented in Baltimore by Ormsby M. Ballauf, manager of Blaney's Theater, North Eutaw street.

Baltimore, Md.—Dwelling.—William N. Thompson, 13 North street, will erect dwelling on Charles Street avenue on site 100x300 feet.

Baltimore, Md.—Storage Warehouse.—The Maryland Storage Co., E. Clay Timanus, president, 51 South Gay street, will erect storage warehouse at corner York street and Battery avenue; four stories; 200x300 feet; reinforced concrete construction. The company is also contemplating the erection of another storage warehouse on North Front street.

Baltimore, Md.—Store Building.—W. T. Littlepage, Jr., & Co., 1535-1533 West Baltimore street, will erect store building at southeast corner Baltimore and Calhoun streets; four stories; 20x153 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system; elevator. James F. Farley, Franklin Building, Baltimore and North streets; J. H. Walsh & Bro., 321 Clay street; C. C. Watts, 113 Hamilton street; J. S. Moke, Hoffman Building, 11 East Lexington street; Monmonier & Sorrell, 308 Laurens street; Julius E. Pyles, 419 Dover street; H. S. Appel, 7 Clay street; Willis & Mason, 324 West Biddle street; Morrow Bros., 216 West Saratoga street, Wm. H. Porter, 505 East Forrest street; Henry Pierson & Son, 1009 Hanover street; M. C. Davis, 5 Hopkins place; C. L. Stockhausen, Gay and Water streets; William Batton, 3621 Park Heights avenue; F. A. Klunk, 310 Jasper street, and James Worthington, 408 North Howard street, are estimating on construction; Henry J. Tinley, architect, Hoffman Building, 11 East Lexington street; bids to be in April 25.

Baltimore, Md.—Warehouse.—Kingan Provision Co., 355 North street, has leased lots at 362-366 North Holliday street and 307-309 Bath street, and, it is reported, will erect warehouse on the site, which is 54x76 feet.

Baltimore, Md.—Warehouse.—Referring to warehouse to be erected on Light near Camden street by I. Ulman & Sons, liquor dealers, 6 West Pratt street, the following contractors are estimating on construction: John Cowan, 106 West Madison street; Morrow Bros., 216 West Saratoga street; John T. Buckley, 916 Bolton street; D. M. Andrews Company, Vickers Building, 25 East German street; Henry L. Maas, 1121 Ensor street; Joseph Schamberger, 2122 East Baltimore street; C. L. Stockhausen, Gay and Water streets; Wm. H. Porter & Son, 505 East Forrest street, and Thomas B. Stanfield & Son, 109 Clay street; four stories, 18x100 feet; brick with stone and terra-cotta trimmings; reinforced concrete construction; slag roof; electric wiring and fixtures; sanitary plumbing; heating system; elevator; two electric elevators; Harding & Upman, architects, 729 15th street N. W., Washington, D. C.

tary plumbing; heating system; elevator; bids to be in April 26; Louis Levi, architect, American Building, Baltimore and South streets.

Baltimore, Md.—Dwellings.—August Weber, president of German Bank, Baltimore and Holliday streets, has awarded contract to Frank Novak, 800 North Duncan street, for the construction of 16 two-story brick dwellings on Madison street near Milton avenue to cost \$16,000.

Baltimore, Md.—Dwellings.—H. Webster Cooke, 210 Law Building, 225 Courtland street, has awarded contract to Wm. R. Llewellyn, 1906 East Lafayette avenue, for the construction of four two-story brick dwellings on Belt avenue near Randall street and two two-story brick dwellings on Covington street near Fort avenue to cost \$10,000; Jacob F. Gerwig, architect, Hoffman Building, 11 East Lexington street.

Baltimore, Md.—Dwellings.—H. Webster Cooke, 210 Law Building, 225 Courtland street, has awarded contract to Jerome Love, 1424 Jackson street, for the construction of 19 two-story brick dwellings on Wolfe street near Lafayette avenue and four two-story brick dwellings on Lanvale near Wolfe street to cost \$24,500; Jacob F. Gerwig, architect, Hoffman Building.

Beaumont, Texas.—School Buildings.—School Board is having plans prepared by F. W. Steinman for the erection of two or possibly three brick school buildings.

Birmingham, Ala.—Jail Building.—Jefferson county will vote on the issuance of about \$500,000 of bonds for erection of new jail. La Belle-Krubs Company will prepare plans and specifications; Dr. Shirley Bragg, State Jail Inspector.

Birmingham, Ala.—Warehouse.—S. Spiro has had plans prepared for three-story warehouse costing \$16,000.

Bishopville, S. C.—Courthouse.—Edwards & Walter, Columbia, S. C., are preparing plans for new courthouse to be erected at cost of \$50,000; size of building, 70x110 feet; two stories and basement; pressed brick, terra-cotta and stone; ordinary construction; steam heating; electric lighting; date for opening bids will be announced later. Address J. L. McLendon, chairman County Commissioners. (Recent mention slightly incorrect.)

Bluefield, W. Va.—Depot.—Reported that the Norfolk & Western Railroad has had plans prepared for enlarging present depot. Two stories, 16 feet long, will be added at west end, and two stories, 30 feet long, at east end, making total length 156 feet; native stone; from second story an over-track walkway will be built to platform between second and third tracks, which will be covered by umbrella shed; estimated cost \$35,000; C. S. Churchill, Roanoke, Va., chief engineer.

Boaz, Ala.—Home.—Reported that the Rebecca McCleskey Home will be rebuilt; three stories; 90 rooms, accommodating 140 persons; brick veneer; metal shingles; cost \$26,000. Address The Superintendent.

Bogalusa (not a postoffice), La.—Hotel.—National Hotel Co. will erect modern 80-room hotel. Forty of the rooms will be equipped with baths; J. Burns, Memphis, Tenn., general manager.

Booneville, Miss.—Courthouse and Jail.—Board of Supervisors of Prentiss county, Miss., will receive bids until May 7 for the completion of courthouse and jail buildings according to plans and specifications on file in the Chancery Clerk's office. All proposals must be accompanied by certified check for 10 per cent. of amount of bid; B. McCullar, clerk.

Bowling Green, Va.—Office Building.—Supervisors of Caroline County considering erection of clerk's office. John L. White, Eugene Bowie, A. G. Smith and J. R. Blanton have been appointed to formulate plans.

Buena Vista, Va.—Business Building.—T. T. Dickinson & Bro. have purchased site at \$3750 and will erect two or three-story business building.

Bunkle, La.—Building.—Mohawk Building Co., Ltd., has been organized to erect building costing \$10,000.

Carrollton, Ga.—Bank Building.—First National Bank will erect bank building.

Charleston, W. Va.—Office Building.—C. M. Alderson and Samuel Stephenson have awarded contract to the Engineering Contracting Co., American Building, Baltimore, Md., for the construction of proposed office building; 12 stories and basement, 40x93 feet; brick with stone and ornamental terra-cotta trimmings; steel frame construction, fireproofed with hollow tile; interior marble; slag roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; two electric elevators; Harding & Upman, architects, 729 15th street N. W., Washington, D. C.



Charlestown, W. Va.—Dwelling.—Dr. A. O. Albin will erect dwelling; two stories; brick with stone trimmings; slate roof; metal trimmings; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost about \$6000; A. B. Mullett & Co., architect, 1411 F street N. W., Washington, D. C.

Charleston, W. Va.—School Buildings.—Board of Education will erect two school buildings, for which plans are being prepared by Clarence Martindale, Indianapolis, Ind.; buildings to be of mill construction, have steam-blast heating and cost \$100,000.\*

Charlotte, N. C.—Residence.—Vinton Liddell has awarded contract to Sam Asbury for erection of winter residence.

Chattanooga, Tenn.—Store and Apartment Building.—Hufaker, Fuqua & Co. will erect two-story concrete store and apartment building to cost \$6000.

Chillicothe, Texas.—Building.—Herring Laird Banking Co. proposes to erect two-story business building.

Clifton Forge, Va.—Church.—Presbyterian congregation contemplates building new edifice; site 140x89 feet; brick; seating capacity 700; cost \$15,000. W. M. Smith, P. L. Yarbrough, A. O. Surber and others compose building committee.

College Park, Ga.—Gymnasium.—Georgia Military Academy will erect gymnasium; three stories; brick; steam heat; electric lights; D. G. Bettis, contractor.

Columbia, Mo.—College Buildings.—Stephens College will have plans and specifications prepared by Louis C. Spiering, St. Louis, Mo., for conservatory of music and gymnasium; building 50x130 feet; steam heat; electric lighting; hand-power freight elevator; cost of building \$24,000.

Columbia, S. C.—Church.—First Presbyterian Church will erect Woodrow Memorial Chapel at cost of \$7500 after plans by Chas. C. Wilson. Contract not yet let; ordinary construction; brick; seating capacity 300; furnace; electric lighting. Date for opening bids not yet fixed.

Concord, N. C.—Store Building.—Cannon & Bogar have employed Hook & Rogers, Charlotte, N. C., to prepare plans and specifications for store building.

Corinth, Miss.—Church.—Filmore Street Baptist Church will erect a church to cost \$20,000. The LaBelle-Krills Co. of Birmingham, Ala., is preparing the plans.

Corinth, Miss.—Church.—Baptist Church will have plans prepared by the LaBelle-Krills Company, Birmingham, Ala., for erection of edifice; exterior of Philadelphia pressed brick with cut-stone trimmings; interior finished in oak; cost \$20,000. S. D. Bramlett, H. E. Ray, T. A. Read and others compose board of deacons.

Corpus Christi, Texas.—Hotel.—State Epworth League has accepted plans by Architect Hagy, San Antonio, Texas, for proposed hotel to be built on encampment grounds at Epworth-by-the-Sea; 85 rooms; combined bathhouse and cafe; cost \$8000. Bids will be received and contract awarded as soon as possible. A. K. Ragsdale, Dallas, Texas, is president.

Cumberland, Md.—High-school Building.—Allegheny County Commissioners will expend \$12,000 for erection of high-school building in Cumberland.

Cumberland, Md.—Theater.—Maryland Theater Co. has awarded contract to the Brady Construction & Engineering Co., Parkersburg, W. Va., for erection of theater costing about \$70,000 after plans by John D. Allen, Philadelphia, Pa.; seating capacity 1800. (Referred to April 18.)

Dallas, Texas.—School Building.—Plans for high-school building have been revised and construction work will proceed. Bonds have been sold; Lang & Whitehall, architects; Thomas G. Terry, City Secretary; J. L. Long, Superintendent of Schools.

Danville, Va.—Theater.—Contract for theater to be erected for S. A. Schloss, recently reported, has been awarded to D. Hanna; work to begin at once. Plans were prepared by Hook & Rogers, Charlotte, N. C.

DeWitt, Ark.—Jail.—Sealed bids for building jail will be received by County Judge and Commissioners of Arkansas county, Arkansas, until May 30. Plans and specifications may be seen at office of Thomas Shannon, County Clerk, DeWitt, or may be had by application to W. S. Hull, architect, Jackson, Miss., and enclosing with application a deposit of \$5. Each bid must be accompanied by certified check for \$1000; usual rights reserved; J. I. Porter and J. W. Allen, Commissioners.

Elkins, W. Va.—Office Building.—C. H. Scott will erect office building recently mentioned; 70x115 feet; three stories and base-

ment; press brick, stone trimmings; contractor for foundations, etc., V. Trimboli; architect, A. C. Lyons, Fairmont, W. Va.; owner is providing material; steam and natural-gas heating will be used, and natural gas and electric lighting; building will contain six vaults in offices and storerooms, and banking rooms also will have vault; cost of building, \$40,000.

Emporia, Va.—High-school Building.—Jas. H. Brinson, Hampton, Va., will probably receive contract at \$29,765 for erection of high-school building. (Referred to April 4.)

Fort Oglethorpe, Ga.—Buildings.—Sealed proposals in triplicate will be received at office of H. D. Berkeley, Captain and Quartermaster, Atlanta, Ga., until May 15 for construction of stable guard for band stable and shelter for mounted guard. Full information furnished on application; usual rights reserved. Envelopes containing proposals should be indorsed "Proposals for Buildings at Fort Oglethorpe, Ga."

Frederick, Md.—Opera-house.—City has awarded contract to S. A. Westernhaver, Martinsburg, W. Va., at \$10,963 for erection of opera-house after plans by George D. Whitson, Martinsburg, W. Va. Structure, when completed and equipped, will cost about \$18,000. (Referred to April 18.)

Frederick City, Md.—Opera-house.—S. A. Westernhaver, Martinsburg, W. Va., has been awarded contract for superstructure of opera-house, bids for which were mentioned April 18. The work is remodeling of part of city hall, market-house and opera-house, and will be done at cost of \$18,000; floors will be dropped, large auditorium built, balconies and galleries added, etc.; total seating capacity 1450; direct-steam heat; electric and gas lighting; architect, George O. Whitson, Martinsburg, W. Va.

Fort Worth, Texas.—Business Building.—Charles E. Van Gorder has contract to erect store building for James Farmer after plans by Stewart Moore. (Referred to April 4.)

Fort Worth, Texas.—Residence.—Walter Scott is having plans prepared by Smith & Schenk for residence; two stories; frame; warm-air heat; hardwood floors; art glass; hard plaster; staff work; special mantels; ice refrigerator.

Fulton, Ky.—Residence.—A. L. Lassiter has submitted plans for residence to be erected by Smith Fields; frame; colonial style; cost about \$7000.

Galveston, Texas.—Building.—Sealed bids will be received by Building Committee until May 1 for erection of \$7000 or \$8000 three-story frame building for the U. B. F. and S. M. T.; usual rights reserved. Plans and specifications may be seen at 510 Tremont street, Galveston. Address all communications to Building Committee at above address.

Greensboro, N. C.—Residence.—J. Ed Albright will erect residence.

Greensboro, N. C.—Dormitory.—The executive committee of State Normal College has instructed Hook & Rogers, Charlotte, N. C., to prepare plans and specifications for 40-room dormitory; three stories high; heated with steam; lighted with gas and electric lights; equipped with fire protection; plumbing, etc.; contract to be awarded as soon as plans are completed.

Greensboro, N. C.—Auditorium.—Hook & Rogers, Charlotte, N. C., will prepare plans for auditorium for State Normal College; seat between 1200 and 1500. Plans will be ready in two weeks. Address Prof. J. I. Foust, Dean, Greensboro, N. C.

Greensboro, N. C.—College Buildings.—State Normal and Industrial College has decided to complete the students' building and to build additional dormitory-room. C. C. Hook, architect of the board, will prepare plans and specifications.

Greenville, S. C.—Hotel.—Greenville Hotel Co. will have plans prepared by Shand & La Faye, Columbia, S. C., for hotel; five stories and basement.

Griffin, Ga.—City Buildings.—City's bond issue of \$25,000 to \$30,000 is for city buildings; contemplated improvements include erection of city hall and other offices connected with city government. As projected, buildings will be of stone, brick or concrete. N. B. Drewry is Mayor. (Mentioned recently.)

Gulfport, Miss.—Residence.—C. H. Nimge, Shreveport, La., has awarded contract to the Haire Construction Co. of Gulfport to erect residence; cost \$19,300.

Guthrie, O. T.—Courthouse.—Commissioners of Lincoln county have awarded contract to Manhattan Construction Co., New York, N. Y., for courthouse to be erected at cost of \$130,000 after plans by P. H. Weathers, 319-320 Hall Building, Kansas City, Mo.; four-story building, 83x112 feet; low-pressure steam heat to be used. (Mentioned April 18.)

Hamburg, Ark.—Jail Building.—Hull-Hawley Jail Co., Jackson, Miss., has contract at \$28,000 for erection of county jail building; E. A. Scott and T. E. Mears, County Jail Commissioners.

Hattiesburg, Miss.—Freight Depot.—Mississippi Central Railroad is reported as considering the erection of freight depot; R. K. Smith, Hattiesburg, general manager.

Hattiesburg, Miss.—School Buildings.—City will erect two brick school buildings, plans for which are now being prepared by Robert E. Lee, Keyes Building; cost \$15,000 each; steam heat to be used, and electric lighting; buildings will be in First and Fourth wards.

Hillsboro, Texas.—School Building.—Sealed bids will be received for erection of two-story and basement brick high-school building by a joint committee of City Council and School Board until April 27; structure to be constructed according to plans and specifications on file in office of A. W. Young, secretary, in Hillsboro and at following places: Office of Moad & Skielvig, architects, Dallas; Hill Bros., plumbing contractors, Waco, and Kane & Co., plumbing contractors, Fort Worth. Separate bids will be received at same time for heating and plumbing; usual rights reserved. Certified check for 2 per cent. of cost must accompany each bid.

Houston, Texas.—School Building.—Sealed bids will be received by A. S. Cleveland, secretary Houston Public School Board, until May 6, addressed care of W. Peine, Room 4 High School Building, city. Bids must be accompanied by certified check for \$150, payable to S. C. Red, president Public School Board; check of successful bidder to be retained until proper execution of contract for the covering with galvanized-iron shingles of roof of the Longfellow School. Plans and specifications may be seen upon application to W. X. Norris, City Building Inspector, City Hall; usual rights reserved.

Jackson, Tenn.—Store Building.—T. A. Patton and C. P. Black will erect building; three stories, 100x100 feet; four storerooms; cost about \$40,000.

Jacksonburg, W. Va.—Bank Building.—Sealed proposals will be received by Board of Directors, Bank of Jacksonburg, until May 2 for erection of two-story brick bank building. Plans and specifications may be seen at office of bank in Jacksonburg or at office of architect, Elmer F. Jacobs, Morgantown, W. Va. All bids must be marked "Bids for the Building" and be addressed to L. E. Lantz, Jacksonburg; usual rights reserved.

Jacksonville, Fla.—Freight Buildings.—Bids are being asked until May 10 by the Atlantic & East Coast Terminal Co. for the construction of the proposed office and freight buildings. The buildings will be of brick with tile roofing; steel rolling doors. The offices will be two stories and cover about 28,350 square feet of floor space. The freight houses will be one-story and cover 75,000 square feet of floor space. Plans and specifications can be obtained at the office of the engineer, J. W. Richardson, 310-311 Dyal-Upchurch Building.

Jacksonville, Fla.—Store and Office Building.—Geo. W. Clark will erect store and office building (mentioned last week) at cost of \$55,000; architect, H. J. Klutho; contractor, Halsema-Woodcock Construction Co.; building 60x72 feet, five stories; gray pressed brick; steam heating; electric and gas lighting; one passenger and one freight elevator.

Jefferson, Texas.—Library.—John F. Berry, Corsicana, Texas, has contract at \$7500 for erecting the Carnegie Public Library.

Lake Providence, La.—High-school Building.—Sealed proposals will be received by Building Committee, composed of F. H. Schneider, A. K. Amacker, J. C. Bass and others, representing the Parish Board of School Directors and Police Jury of East Carroll parish, Louisiana, until May 15 for erecting high-school building. Plans and specifications may be seen at office of F. H. Schneider, chairman of Building Committee, Lake Providence, or at office of architects, Gibbs & Sanders, 2 and 4 Reider Building, Little Rock, Ark. Bids must be accompanied by certified check for \$800 in favor of F. H. Schneider.

Laurens, S. C.—School Building.—City has voted affirmatively the issuance of \$30,000 of bonds for erection of school building; referred to April 4. Address The Mayor.

Louisville, Ky.—School Building.—School Board will award contract April 20 for the erection of the Duker avenue school; cost \$50,000.

Louisville, Ky.—Warehouse.—Glencoe Distilling Co. will erect warehouse; eight stories; brick; fireproof; equipped with modern heating and ventilating apparatus; cost \$40,000. Fred Erhart prepared the plans.

Louisville, Ky.—Office Building.—Mann &

MacNeill, architects, 2 East 33d street, New York city, will be in charge of erecting 15-story office building to cost \$600,000.

Louisville, Ky.—Warehouse.—Stitzel Distillery Co. will erect warehouse; one story; 50 feet high; 63x155 feet; cost \$12,000.

Lynchburg, Va.—Union Station.—E. G. Frye is architect in charge of preparing plans for proposed improvements to the union depot of the Norfolk & Western Railway. (Referred to April 11.)

Lynchburg, Va.—Church.—Memorial Methodist Church will enlarge and improve edifice, expending about \$8000. Address The Pastor.

Lynchburg, Va.—Apartment-house.—A. L. Beasley is having plans prepared by Aubrey Chesterman for erection of apartment-house; three stories and basement; brick and stone; six separate apartments, each equipped with electric lights, gas, baths and gas ranges; cost of building, \$8000 to \$10,000.

Manchester, Va.—Storage Warehouses.—Richmond Tobacco Storage Co. Incorporated with \$50,000 capital stock to build and acquire warehouses in Manchester and other cities, making a specialty of storing farm products, particularly tobacco; Tazewell M. Carrington, president; John M. Taylor, vice-president, and Eric C. Boudar, secretary-treasurer.

Marshall, Texas.—City Hall.—City has awarded contract to Chrisman & Neabett, Dallas, Texas, at \$43,556.75, for erection of city hall, after plans by Lange, Wichell & Lancaster; contract includes electric wiring, heating and plumbing. (Referred to April 4.)

Memphis, Tenn.—Apartment-house.—Crawford & Crawford have contract to erect two-story brick flat building for Frank McLaughlin; cost \$2800.

Memphis, Tenn.—Barn.—St. Peter's Orphan Asylum awarded contract to J. H. Moseley for erection of barn; two stories; brick; slate roof; concrete floors; cost \$5000.

Memphis, Tenn.—Building.—E. E. Whitner awarded contract to W. J. Nabors for erection of brick-veneered residence; two stories; eight rooms; slate roof; cost \$5500.

Memphis, Tenn.—Building.—J. A. Bailey awarded contract to McKnight & Barker for erection of three-story brick building to cost \$30,000.

Memphis, Tenn.—Union Depot.—Memphis Terminal Railroad Co., previously referred to, has elected John H. Watson president, J. L. Lancaster vice-president, F. H. Hamilton treasurer and O. F. Grist secretary, and will proceed to arrange for building proposed union depot and terminals. Previous announcements stated the plans to call for main station, 200x200 feet, with 50-foot platform all around; yard with space for 440 coaches, etc.; amount reported to be expended, \$3,000,000 for passenger station and \$2,000,000 for terminals.

Memphis, Tenn.—Residence.—D. D. Thomas & Sons have secured permit to erect residence for R. J. Darnell; two stories; brick with stone trimmings; concrete foundation; cost \$32,000.

Memphis, Tenn.—Tenement Buildings.—W. J. White will erect 12 one-story frame tenements at a total cost of \$6000; contractors, Pritchard Bros., 642 Florence avenue.

Meridian, Miss.—Freight Station.—Alabama & Vicksburg Railway (Queen and Crescent Route) has rejected all bids for erection of freight station and is inviting new bids to be opened May 1; D. D. Curran, 839 Gravier street, New Orleans, general manager. (Referred to April 11.)

Mingo, W. Va.—Opera-house.—Smith Bros., Huntington, W. Va., are preparing plans for brick opera-house 60x100 feet. J. Rosenthal and L. Pollack will be managers.

Mobile, Ala.—Hotel.—R. Benz & Sons have completed plans and specifications for proposed hotel to be erected by Jos. B. Webster; five stories; Renaissance style of architecture; reinforced concrete fireproof construction; tile partitions with wood finishings. Bids for construction will be invited at once. (Referred to March 21.)

Montgomery, Ala.—Theater.—Montgomery Building & Realty Co. Incorporated with \$60,000 capital stock; R. E. Steiner, president; N. J. Griel, vice-president, and Leon Well, secretary-treasurer. (This company was reported April 18 as having awarded contract to Hodgson & Hannon at \$60,000 for erection of the Bijou Theater, to be of fireproof construction and have seating capacity of 1800.)

Montgomery, Ala.—Warehouse.—Graves & Anderson will erect warehouse; four stories and basement; site 38x126 feet; cost \$14,000.

Montgomery, Ala.—Store and Flat Building.—Simon Loeb will erect store and flat building; size, 42x70 feet; mill construction;

steam or hot-air heating; gas and electric lighting; parquet floors and slate roof; cost \$8000 to \$10,000; architect, E. J. Ostling; contractors, Hugger Bros.

Montgomery, Ala.—Hotel.—Gay-Teague Realty Co., recently mentioned as having plans for hotel, will build same at cost of \$325,000; architects, Carpenter, Blair & Gould, New York, N. Y.; building to be 80x110 feet; 10 stories and basement, with vaults under sidewalk; steel skeleton; terra-cotta fireproofing; direct steam heat; electric lighting; two passenger elevators and two dumb-walkers. Following machinery to be installed: Two 100-horse-power boilers, fire and house pumps, hot water heaters, pressure tanks, air-compressors, kitchen apparatus, wine and beer coolers, vacuum-cleaning apparatus; plans about ready for selected limited number of bidders for entire work.

Moundsville, W. Va.—Warehouse.—United States Stamping Co. is considering erection of warehouse; three stories; brick and steel; 72x160; J. M. Sanders, secretary.

Muskogee, I. T.—Convention Hall.—Market Square & Convention Hall Co. incorporated with \$50,000 capital stock by A. C. Trumbo, W. E. Rowsey, J. G. Huber and J. L. Dabbs to erect convention hall having seating capacity of 5000.

Nashville, Tenn.—Apartment-house.—Marcus Cartwright contemplates erecting apartment-house; four stories; brick and stone; 12 flats of five rooms each; elevator; cost \$10,000.

Nashville, Tenn.—College Building.—Draughon's Practical Business College Co. has purchased site 50x120 feet on which to erect building; six stories and basement, equipped with electrical elevator service, telephone, heating, light and water systems, etc.; entire sixth floor occupied by the telegraph and railroad department; publication annex will be equipped with printing plant; total cost of building about \$50,000. Prof. John F. Draughon is president.

Newbern, Tenn.—School Building.—City has voted affirmatively the issuance of \$25,000 of bonds for erection of school building. Address The Mayor.

New Orleans, La.—Wharf.—Board of Commissioners of Port of New Orleans, Nos. 601-602 Hibernia Bank & Trust Co. Building, New Orleans, will receive bids until May 14 for construction of St. Andrew street wharf, materials for which are to be furnished by said board; deposit, \$1000; payments, 80 per cent. monthly; bond in full amount of contract; plans, specifications, proposal forms, etc., on file at office of engineer, A. C. Bell, 506 Hibernia Bank & Trust Co. Building, by whom full sets will be furnished on deposit of \$15; usual rights reserved; Hugh McCloskey, president.

New Orleans, La.—Apartment-house.—D. H. Barnes has been awarded contract for apartment-house to be erected by Octavia Apartment Co., as mentioned April 18; plans made by Favrot & Livaudais; building to be five stories; combination mill and fireproof construction; steam heat; electric lighting; cost \$80,000.

Norfolk, Va.—Business Building.—E. P. Crockett will erect brick building at cost of \$7500; 30x90 feet; hot-water heating; gas and electric lighting; contractor, B. L. Nichols.

Norfolk, Va.—Hotel.—United Hotel Corporation incorporated with \$100,000 capital stock, I. B. Johnson, Norfolk, vice-president, and C. Fisher Collier, Petersburg, Va., secretary-treasurer.

Norfolk, Va.—Store Building.—T. J. Carey has purchased site at \$7500 for erection of four-story brick building equipped with modern plumbing.

Norfolk, Va.—Building.—Sterling Place Company will erect brick and frame building in Colonial place at a cost of \$9200.

Oklahoma City, O. T.—Car Barns, etc.—Oklahoma Street Railway Co. contemplates expending about \$500,000, part of which will be used for the construction of interurban barns and offices and the erection of new general car barns. John W. Shartel is general manager.

Oklahoma City, O. T.—Office Building.—H. N. Rummell will erect five-story brick office building.

Oklahoma City, O. T.—Office Building.—Steel bids only are yet let for erection of office building for S. R. Raymond; contractor, O. A. Penn, 1216 South Walker street; architects, Hawk & Colegrove; fireproof building, 50x100 feet; steam heating; electric lighting; cost \$35,000. (Mentioned recently.)

Oklahoma City, O. T.—Business Building.—T. F. Colcord has purchased site at \$55,000 and will erect eight-story fireproof building.

Parkersburg, W. Va.—Business Building.—W. S. Mercereau will erect press-brick building, 25x54 feet, after plans by W. Howe Pat-

ton; contractor, I. G. Poling; cost of building, \$6000 to \$8000; electric lighting will be used.

Petersburg, Va.—Postoffice and Custom-house.—Sealed proposals will be received at Treasury Department, office of James Knox Taylor, supervising architect, Washington, D. C., until May 22 for extending, remodeling, etc., including plumbing, gaspiping, heating apparatus, electric conduits and wiring to the U. S. postoffice and custom-house, Petersburg, in accordance with drawings and specifications, copies of which may be had at this office or office of the custodian at Petersburg, at the discretion of the supervising architect.\*

Pflugerville, Texas.—Store Buildings.—Sealed bids for erection of six brick store buildings to be erected by George Pfluger and associates will be received until May 4; plans and specifications on file in Farmers' State Bank; usual rights reserved.

Plainview, Texas.—Hotel.—Hotel mentioned last week will be erected by A. E. Harp and R. C. Ware of Plainview, R. H. Wilkin of Oklahoma City, O. T., and H. J. Wasson of Farmington, Ill.; building to be of brick; 20 rooms with baths and 20 without baths; fireproof; steam heat; electric lighting; architect, W. M. Rice, Amarillo, Texas; cost of building, \$45,000; ready for bids in about a month; suggestions invited. Address A. E. Harp.

Reidsville, N. C.—Hotel.—Review Hotel Co., recently reported organized to build hotel, is having plans prepared by Frank P. Milburn, Washington, D. C.; probable contractor, B. F. Smith, Washington, D. C.; 30-room hotel, with store, barber shop, bar and ballroom; steam heat; electric lighting; cost \$15,000; date for opening bids to be given later. Address P. W. Gildewell.

Rutherford, Tenn.—School Building.—City has voted affirmatively the issuance of \$12,000 of bonds for erection of new school building. Address The Mayor.

Salisbury, N. C.—Store Buildings.—F. J. Murdock, agent for Murphy & Kyle of New Orleans, La., will receive bids for erection of block of five stores after plans by Hook & Rogers, Charlotte, N. C.

Shreveport, La.—Orphanage.—Board of directors Genevieve Orphanage will rebuild the structure, burned recently; brick and stone; cost \$15,000.

Shreveport, La.—Courthouse.—Caddo County Police Jury has awarded contract to Tom Green at \$47,000 for erection of annex to courthouse.

Shreveport, La.—Church.—Bids will be received at office of L. C. Allen, chairman Building Committee, until May 6 for erection and completion of two-story pressed-brick and stone church building for First Baptist Church of Shreveport according to plans and specifications by C. W. Bulger & Son, Dallas, Texas; plans and specifications on file at Builders' Exchange, Shreveport; office of architects, Dallas, and office of chairman, Shreveport. Certified check for \$1000 must accompany each bid. Bidders are requested to visit site of proposed building; usual rights reserved.

Sidell, La.—High-school Building.—Plans for high-school building have been prepared by Andrew J. Bryan, 708 Hennen Building, New Orleans, La., for high-school building to be erected when bonds are sold. Building will contain eight classrooms and auditorium, be of press brick, have plumbing, and steam heat will be used.

Smithville, Texas.—Building.—Rabb & McCollum have awarded contract to M. M. Turney for erection of double two-story brick building costing \$12,000.

Springfield, Md.—Hospital.—Sealed proposals for the erection of "isolating ward" will be received by board of managers Springfield State Hospital for the insane until April 30. Drawings and specifications can be seen at office of architects, Owens & Slaco, 1605 Continental Building, Baltimore, Md. Proposals must be endorsed on outside of envelope "Proposals for Isolating Ward," must be addressed to "Board of Managers, Springfield State Hospital," and be left at office of architects not later than noon April 30; usual rights reserved.

Stone Mountain, Ga.—School Building.—J. W. Golucke & Co., Atlanta, Ga., are preparing plans for school building lately mentioned. As proposed, building will be fireproof, with hot-air heating, to cost \$6000, furnishings included. Address L. F. McClelland, Mayor, Stone, Ga.

Tampa, Fla.—Mattress Factory.—Tampa Bedding Co. has been organized for the manufacture of hair, felt, cotton, excelsior and moss mattresses, pillows, cushions, etc.; company will also deal in springs and cots, do upholstering and repairing and renovate

feathers and hair. Fred J. Wadford is manager. Address 1434 Franklin street.

Temple, Texas.—Lodge Building.—Temple Lodge No. 138, B. P. O. E., will erect building to cost approximately \$50,000. J. B. Hubbard is secretary.

Thibodaux, La.—Lodge Building.—Excelsior Lodge No. 34, I. O. O. F., recently reported as having given contract for new building to Corbin Bros., Jeanerett, La., will erect same at cost of \$10,000; two-story; brick; 63x67 feet; stores on first floor; composition roofing; electric lighting.

Toccoa, Ga.—Jail Building.—Pauly Jail Building Co., St. Louis, Mo., has contract to erect jail building for Stephens county; R. P. Brown, Jr., Ordinary. (Recently referred to.)

Tulsa, I. T.—Church.—The Methodist Church South, J. H. Ball, pastor, will build edifice 70x100 feet; hot-water heat; to open bids about May 10; J. E. Flanders, architect, Dallas, Texas.

Tuscaloosa, Ala.—Association Building.—Board of directors, Y. M. C. A., has adopted plans and specifications for Hannon & Billie, Montgomery, Ala., for proposed building; 70x135 feet; ordinary construction; steam heating; electric lighting; cost \$30,000; bids to be opened about May 1.

Tyler, Texas.—Federal Building.—L. R. Wright, Dallas, Texas, is lowest bidder at \$44,122 for extension of Federal Building.

Washington, D. C.—Building.—Sealed proposals will be received at Treasury Department, office of James Knox Taylor, supervising architect, until May 27 for the construction, including plumbing, heating apparatus, electric work and lift, of an extension to the United States Custom-house in Washington, in accordance with plans and specifications, copies of which may be had at above office.

Washington, D. C.—Apartment-house.—M. Miller has awarded contract to A. C. Shaw, 5408 Brightwood avenue N. W., for the construction of three-story brick and stone apartment-house with electric wiring and fixtures and heating system at 221 H street N. W. to cost \$15,000.

Washington, D. C.—Apartment-house.—Thomas H. Pickford, 1410 G street N. W., will erect large apartment-house on lot 88x115 feet on 19th, between G and H streets N. W.

Washington, D. C.—Bank and Office Building.—The American National Bank, 1315 and 1317 F street N. W., will remodel its bank and office building and erect ornamental dome. Richardson & Burgess, Colorado Building, James L. Marshall, 614 13th street N. W.; Wm. E. Mooney, 1425 New York avenue N. W.; Charles J. Cassidy Company, 523 13th street N. W.; I. Pavarini, 814 18th street N. W.; Wm. P. Lipscomb & Co., 1465 F street N. W.; Fissell & Wagner, Home Life Building, are estimating; B. Stanley Simmons, architect, 931 F street N. W.

Washington, D. C.—Carriage-house and Stable.—Miss Martha C. Codman, Boston, Mass., has awarded contract to John F. De Bann, 2145 Decatur place N. W., for the construction of two-story carriage-house, 55x55 feet, and two-story stable, 21x55 feet, at 1415 22d street N. W. to cost \$19,000; brick and stucco exterior; slate roof; electric wiring and fixtures; sanitary plumbing; hot-air heating system; Ogden Codman, architect, Boston, Mass.

Washington, D. C.—Carriage Repository.—Miss Ada Burk will remodel four-story brick carriage repository at 310 Pennsylvania avenue N. W.; structural iron and steel; sanitary plumbing; elevator. Charles Denham, 826 19th street N. W.; Charles J. Cassidy Company, 523 13th street N. W., and George W. Acorn, 1424 6th street N. W., are estimating on the work; bids to be in April 25; N. R. Grimm, architect, 627 F street N. W.

Washington, D. C.—Dwellings.—Harry H. Wardman, builder, 1333 G street N. W., will erect 20 dwellings on 3d street and Rhode Island avenue N. W. and will also subdivide large lot on Conduit road and erect dwellings on them; A. H. Beers, architect, 1333 G street N. W.

Washington, D. C.—Dwellings.—Francis A. Blundon, 1220 G street, will erect six two-story brick dwellings at 2025-2035 13th street N. W. to cost \$30,000. Electric wiring and fixtures and heating systems will be installed; A. M. Poynton, architect, 911 French street N. W.

Washington, D. C.—Dwelling.—R. R. McKahan, 1815 13th street N. W., and Isaac Pierson will erect dwelling on 16th street between R and S streets N. W.; four stories and basement, 22x85 feet; brick with limestone trimmings; wrought-iron grille work; electric wiring and fixtures; sanitary plumbing; heating system. Appleton P. Clark, Jr., architect, 605 F street, is taking estimates on construction.

Washington, D. C.—Dwelling.—Jennie C. Fasset has awarded contract to Wm. P. Lipscomb & Co., 1405 F street N. W., for the construction of addition to dwelling at 1739 N street N. W.; four stories, 30x110 feet; brick with stone trimmings; electric wiring and fixtures; sanitary plumbing; heating system; cost \$10,000; Hornblower & Marshall, architects, 1516 H street N. W.

Washington, D. C.—Dwelling.—Alonzo O. Bliss, Bliss Building, 35 B street N. W., has awarded contract to John McGregor, 729 12th street N. W., for the construction of dwelling at 1218 16th street N. W.; four stories, 20x35 feet; brick with stone and ornamental terra-cotta trimmings; wrought-iron grille work; fireproof construction; tin and tile roof; electric wiring and fixtures; sanitary plumbing; steam-heating system; cost \$40,000; A. Goener, architect, Bliss Building, 35 B street N. W.

Washington, D. C.—Fire-engine House.—The District Commissioners have awarded contract to Burgess & Parsons, 627 F street, for the construction of brick fire-engine house at Hillbrook to cost \$15,939.

Washington, D. C.—Office Building.—Mutual Fire Insurance Co., 902 Pennsylvania avenue N. W., will erect office building at northwest corner 13th and H streets N. W.; three stories, 25x104 feet; brick with stone trimmings; structural iron and steel; electric wiring and fixtures; sanitary plumbing; heating system; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Store Building.—Charles M. Stieff, 521 11th street N. W. and 7 North Liberty street, Baltimore, Md., has leased one floor of store building at 1008 and 1010 F street N. W. Oliver Metzert, 1110 F street, agent for the Walter estate, which owns the building, will expend about \$12,000 in remodeling the building.

Washington, D. C.—Store Building.—Lutz & Co., 497 Pennsylvania avenue N. W., will erect store building at 1325 G street N. W.; three stories, 25x154 feet; brick with stone trimmings; structural iron and steel; electric wiring and fixtures; sanitary plumbing; steam-heating system; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Store Building.—Samuel Fowler estate, Charles D. Fowler, executor, 512 F street N. W., has awarded contract to Piper & Kenyon, 729 15th street N. W., for the construction of store building at 1516 7th street N. W.; two stories, 62.5x69 feet; brick with stone trimmings; structural iron and steel; tin roof; electric wiring and fixtures; sanitary plumbing; cost \$15,000; Appleton P. Clark, Jr., architect, 605 F street N. W.

Washington, D. C.—Store Building and Apartment.—William Waple, 1249 Maryland avenue N. E., will erect store building and apartment on H street between 12th and 13th streets S. W.; two stories, 16x75 feet; brick with stone trimmings; structural iron and steel; metal ceilings; electric wiring and fixtures; sanitary plumbing; hot-water heating system. N. R. Grimm, architect, 627 F street N. W., is taking bids on construction.

Washington, D. C.—Theater.—The Lincoln Hall Association has awarded contract to S. J. Prescott Co., 1214 H street N. W., for the reconstruction of interior of theater building at corner 9th and D streets N. W. at cost of \$55,000; fireproof construction; electric wiring and fixtures; steam-heating system; elevators.

Wheeling, W. Va.—Building.—John H. Davidson has awarded contract to J. F. McDonald & Bros. for erection of business building. Work will soon begin.

Wheeling, W. Va.—Hotel.—Harry Joyce has awarded contracts for erection of proposed four-story hotel to Carl Hamilton & Co., brickwork; McDonald & Co., wood and carpenter work; American Electric Co., installation of electric-lighting apparatus, chandelier and wire work; total cost about \$40,000. Giesey & Farris have charge of plans and act as supervising architects. (Referred to April 18.)

Williamson, S. C.—Hotel.—Horton & Hammond will convert college building recently purchased by them into hotel of 43 rooms, with a large chapel. Electric lighting will be used. Repair work has been done by local contractors.

Wilmington, N. C.—Store and Office Building.—E. T. Hancock is reported to erect store and office building; three or four stories; brick with stone trimmings; elevator; site 50x90 feet.

Wilmington, N. C.—Warehouse.—Mr. O'Brien will erect warehouse for O. H. Wright & Bro.; two stories, 80x100 feet.

Wilmington, N. C.—Warehouse.—Hall & Pearsall, Inc., will erect office warehouse building, 80x125 feet; brick. One wing will be three stories high and the remainder two



stories. Plans have been prepared by Leitch & Wilkins and bids are now being received.

Winston-Salem, N. C.—Store Buildings.—Hook A. Rogers, Charlotte, N. C., will prepare plans to remodel Gray building, owned by James R. Gray.

## RAILROAD CONSTRUCTION.

### Railways.

Arkadelphia, Ark.—The Antoine Valley Railroad Co. has applied for charter to build a line from Grayson to Arkadelphia, 27 miles; capital \$150,000. The directors are W. Grayson, N. W. McLeod, J. S. Cargile, G. M. Grayson and I. M. Sells.

Atlanta, Ga.—The report that the Louisville & Nashville Railroad proposes to build a line from Atlanta to Cartersville, Ga., is officially denied in a letter to the Manufacturers' Record.

Beaumont, Texas.—J. O. Sanford of Lorain, Ohio, representing the Buckeye Transit Co., is reported to be investigating a route for an electric railway from Beaumont to Port Arthur, Texas, about 20 miles. He represents the South Texas Traction Co., headquarters at Fort Worth, Texas. Eastern capital is said to be interested, also R. H. McNat and J. P. King of Fort Worth.

Brenham, Texas.—The Brazos Valley, Brenham & Gulf Railroad Co. has filed incorporation articles; capital \$1,000,000 and headquarters at Brenham; to build from Brenham to Waco, Texas, 121 miles. The incorporators are F. W. McGuire of Dallas, John H. Baker, of Topeka, Kan.; D. E. Teague, R. E. Pennington, W. E. Reichardt, E. G. Langhammer, Robert Streikert, D. C. Giddings, T. A. Low, F. W. Wood, Arthur Wangemann, O. A. Seward, Frank Brown, Jr., H. F. Hohit and C. W. Winkelmann, all of Brenham.

Broadway, Va.—The United States Leather Co. of Philadelphia, Pa., is reported to be having a survey made for an electric railway to connect Broadway and Lost City, 30 miles. An extension of four miles from the latter point may also be made to tanneries owned by the company.

Broxton, Ga.—The Ocella & Valdosta Railroad Co. is reported to have announced the sale of its line from Broxton to Fitzgerald, Ga., to a syndicate represented by H. C. McFadden, and it is rumored that the Atlanta, Birmingham & Atlantic Railway, with which he was recently connected, will extend the line to Savannah. Mr. McFadden is president and general manager of the purchased road, now operating under the Broxton, Hazlehurst & Savannah Railroad charter; headquarters at Fitzgerald, Ga. Another report says that a new charter will be secured and the company may build west from Fitzgerald into Alabama, as well as east via Baxley, Greenville and Hinesville into Savannah.

Bunkie, La.—The Texas & Pacific Railway, it is reported, has purchased the Louisiana East & West Railroad, which has been graded from Bunkie as far as Eunice, with track laid to Ville Platte. The Texas & Pacific is to complete the line. B. S. Wathen is chief engineer at Dallas, Texas.

Center, Texas.—The Manufacturers' Record is officially informed that the Santa Fe has not yet made any program covering the proposed extension from Center to Paris, Texas. C. F. W. Felt is chief engineer at Galveston, Texas.

Colefax, La.—Mr. C. H. Teal, president of the proposed Natchitoches East & West Railroad, writes the Manufacturers' Record that the line will be about 40 miles long. L. Casparie is vice-president, J. H. Williams treasurer and John A. Barlow secretary. The work will be let to a construction company and bonds will be sold.

Corbin, Ky.—An officer of the Cumberland River & Nashville Railroad Co. is reported as saying that this line is to run from Corbin southwest to Nashville, Tenn., 190 miles, via Burnside, Monticello and Albany. C. E. Coon and Peter C. Co. of Louisville have contracts for a section about 20 miles long from Burnside, Ky., to Monticello.

Dallas, Texas.—J. Mercer Carter is reported as saying that grading is under way at four different points on the electric railway from Waxahatche to Greenville, Texas, and that the line will be in operation by September 1.

Elkin, N. C.—The Elkin & Alleghany Railway Co., which proposes to build a line 25 or 40 miles long from Elkin to Sparta, N. C., across the Blue Ridge, and which was chartered by the Legislature, has organized by electing directors as follows: President, H. G. Chatham of Elkin; first vice-president, C. L. Smoot of Wilkesboro; second vice-presi-

dent, H. E. Fries, of Winston-Salem; secretary and treasurer, A. G. Click of Elkin; R. A. Doughton, G. T. Roth, A. M. Smith, E. F. McNair, R. M. Chatham, C. L. Smoot, A. H. Eller, C. M. Smith, E. F. Fields, J. F. Hendren and W. J. Boyles. O. H. P. Cornell, chief engineer of the Winston-Salem South-bound Railway, has made a preliminary inspection of the Elkin and Sparta route.

Fairmont, W. Va.—The Baltimore & Ohio Railroad Co. has accepted the franchise for extending the Palatine branch through Fairmont. D. D. Carothers is chief engineer at Baltimore.

Fort Worth, Texas.—Reported that the St. Louis Southwestern Railway has decided to build terminals in Fort Worth at a cost of \$50,000. M. L. Lynch is chief engineer at Tyler, Texas.

Fort Worth, Texas.—An officer of the Rock Island system is reported as saying that the company has practically decided to build the belt line around Fort Worth. J. S. Peter is chief engineer at Fort Worth.

Galveston, Texas.—Fremont Hill, president of the Yankton & Gulf Railway Co., visiting Galveston to consider terminal questions, is quoted as saying that the company proposes to build a line from Yankton, S. D., to Galveston, less than 1000 miles long; that it has been located through Nebraska and engineers are now working in Kansas and Indian Territory.

Galveston, Texas.—The Gulf & Interstate Railroad Co. is reported to have purchased land for additional terminal facilities at Port Bolivar, opposite Galveston. L. P. Featherstone of Galveston is president.

Garvin, I. T.—The Choctaw Lumber & Veneer Co., E. E. Busby, president, is reported to be building a railroad eight miles long from Garvin to the Red river.

Greenville, S. C.—Reported that construction has begun upon the proposed Greenville Interurban Railway at Greenville. The promoters are A. A. Gates, Adam C. Welborn, O. K. Mauldin and H. H. Prince, all of Greenville.

Groveton, Texas.—Contract for the proposed North & South Texas Railroad from Groveton to Lufkin, Texas, is reported let to McCarthy, Starnes & Co. of Lufkin, and bids for grading, etc., have been requested by them. The Trinity County Lumber Co., of which J. C. Anderson is general manager, is reported to be interested.

Henderson, N. C.—The Roanoke River Railway Co., it is reported, proposes to build from Manson, N. C., on the Seaboard Air Line to Soudan, N. C., on the Southern Railway. G. W. Marrow of Bullock, N. C., is president.

Henrietta, Texas.—Mr. Ed. S. Hughes, Abilene, Texas, informs the Manufacturers' Record that the Southwestern Railway Co. has not yet been incorporated, but that charter has been submitted to the State Department for approval. The line proposed is from Henrietta southwest through Clay and Archer counties.

High Point, N. C.—The city has voted to issue \$50,000 of bonds in aid of the Randolph & Cumberland Railroad, which is building an extension from Hallison toward Deep River, N. C.; headquarters at Carthage, N. C. Edward W. Shedd is president.

Houston, Texas.—The Galveston & Houston Electric Railway Co., capital stock \$3,000,000, has filed its charter to build the proposed electric railway from Houston to Galveston, 51 miles. Stone & Webster of Boston, Mass., are the principal stockholders; headquarters at Houston. The directors are M. M. Phinney, Dallas; David Daly, C. W. Wharton, W. B. Chew, Jesse H. Jones, William A. Wilson and James A. Baker, Jr., all of Houston. J. Goodenough has charge of construction for Stone & Webster.

Jefferson City, Mo.—Contract for the Missouri Interurban Electric Railroad from Sedalia to Jefferson City, 80 miles, has been let to the Bell Construction Co. of Indianapolis, Ind., and work is to start on May 15 at Ottaville.

Keyser, W. Va.—An officer of the company, writing to the Manufacturers' Record, denies the press report that the Baltimore & Ohio Railroad is surveying for a line from Keyser, W. Va., to Harrisonburg, Va.

Leesville, La.—Rapid progress is reported on the construction of the Gulf & Sabine River Railway, which is being built to a connection with the Kansas City Southern, for the Gulf Lumber Co. The company is authorized to build from Leesville to Alexandria, La.

Mangum, O. T.—Construction is reported begun on the Colorado, Texas & Mexico Railway to run from Mangum, O. T., to Abilene, Texas, about 270 miles, and the line is to be completed this year to Chillicothe, Texas.

Morris R. Locke is president at Abilene, Texas.

Marianna, Ark.—G. W. L. Brown, general manager of the proposed Marianna, Brinkley & Western Railroad Co., is quoted as saying that contract for construction of the line from Marianna to Brinkley, Ark., 28 miles, will be let in a few days.

Memphis, Tenn.—Preliminary steps are reported for condemning property required by the Memphis Railroad Terminal Co., and grading is expected to be started before fall; John H. Watkins, president; O. F. Ghrist, secretary.

Mobile, Ala.—The Mobile, Jackson & Kansas City Railroad Co. is reported to be preparing plans for the expenditure of several millions of dollars over its entire line from Mobile, Ala., to Middleton, Tenn. H. S. Jones is superintendent and chief engineer at Mobile.

Monroe, La.—The Progressive League has started a movement to secure the building of a connection between the Monroe & Southwestern Railroad and the Tremont & Gulf Railroad, the proposed new line to run from Luna to Chatham, La.

New Orleans, La.—Mr. L. F. Loree, chairman of the board of the Kansas City Southern Railroad, writes the Manufacturers' Record that in the present state of the money market there is nothing doing concerning the extension from Leesville, La., to New Orleans.

Norfolk, Va.—The Virginian Railway Co. has elected officers as follows: President, W. N. Page of Ansted, W. Va.; vice-president and general manager, Raymond Dupuy of Norfolk, Va.; treasurer, James Clarke of New York; assistant secretary, Walter H. Taylor of Norfolk, Va. H. Fernstrom of Norfolk is chief engineer. The directors are Messrs. Page, Dupuy and Taylor, besides Charles M. Pretlow, John Kee and E. W. Knight.

Oklahoma City, O. T.—G. B. Stone of Oklahoma City, president, is reported as saying that he will renew efforts to secure construction of the Oklahoma & Texas Railroad, for which a survey was made from Oklahoma City to Lindsay, I. T., and Wichita Falls, Texas.

Oklahoma City, O. T.—The Oklahoma Rapid Transit Railway Co., which proposes to build a line from Norman, via Oklahoma City and Shawnee, to Muskogee, I. T., has opened offices in the Baltimore Building and will immediately begin a survey for a line to Norman. George E. Silsby of Saginaw, Mich., heads the company, but Alfred E. Hare of Tecumseh, O. T., and others are also interested.

Onley, Va.—Mr. C. R. Waters, secretary of the Chesapeake & Atlantic Light & Power Co., writes the Manufacturers' Record that the proposed electric railway is to be seven and one-half miles long, connecting Onley, Locustville and Wachapreague, Va. The officers are E. T. Powell, Trower, Va., president; B. T. Parks, treasurer, and C. R. Waters, secretary, both of Onley, Va.; directors, A. J. McMath, L. J. Savage, E. A. Ames and J. W. Rogers of Onley, Va.; Dr. J. W. Kellam and C. V. Willis of Wachapreague, Va.; W. T. Rogers, Finney, Va.; W. A. Burton, C. B. Savage and J. F. Parks of Onley; A. H. G. Mears and M. R. Bulman of Wachapreague; B. T. Gunter, Accomac, Va., and W. J. Milliner of Locustville, Va.

Opelousas, La.—The Opelousas, Gulf & Northeastern Railroad is nearing partial completion, and it is reported that trains will be operated from Opelousas to Melville, La., on and after May 1.

Parma Station (P. O. Rotan), Ark.—The Gould Southwestern Railway Co. is reported chartered to build a spur from Parma Station on the St. Louis, Iron Mountain and Southern (Missouri Pacific system) to South Bend, Ark., about 10 miles. E. F. Mitchell is engineer of construction of the Missouri Pacific at St. Louis, Mo.

Pineville, W. Va.—A mortgage has been filed to secure \$1,500,000 of 4 per cent. bonds of the Raleigh & Southwestern Railway Co. to provide for an extension from a connection with the Piney branch of the Chesapeake & Ohio Railway at or near Raleigh Station up the Piney river and tributaries and over the divide, thence down any tributaries of the Guyandotte river in Raleigh or Wyoming counties; also for another extension from near Raleigh Station up Beavers creek and over the divide, thence into the valley of Glade creek or any of its tributaries. H. Pierce, engineer of construction of the Chesapeake & Ohio Railway at Richmond, Va., may be able to give information.

Roseboro, Ark.—The Caddo & Choctaw Railroad Co. has been chartered to build a line 23 miles long from Roseboro to a point near Langley, Ark.; capital authorized, \$350,000.

000. The incorporators are Thomas W. Roseborough, DeWitt Davis, M. R. Smith, William N. Bemis and Horace E. Bemis.

Rusk, Texas.—Concerning the proposed extension of the Texas State Railroad, the Manufacturers' Record is informed that Hon. J. W. Wright of the State Penitentiary Board will personally attend to the work and supervise the letting of contracts. His address is at Tyler, Texas.

Sanford, N. C.—Mr. C. A. Bray of Greensboro, N. C., writes the Manufacturers' Record that the Greensboro, Seaboard & Great Western Railway Co. has only been chartered and is not yet organized. The incorporators are N. W. Thompson, C. H. Ireland, H. H. Brooks, J. Allen Holt, C. M. Vanstony, J. W. Fry, A. M. Scales, C. A. Bray, J. E. Brooks, R. H. Vaughan, J. R. Gordon, W. E. Allen, E. J. Justice, J. R. Hughes and C. D. Benbow.

Sapulpa, I. T.—The St. Louis & San Francisco Railroad will, it is reported, build a spur into the Glenn Pool oil field. J. F. Hinckley is engineer of construction at St. Louis, Mo.

Stephenville, Texas.—B. C. Cage is reported as saying that 17 miles of grade have been completed between Stephenville and Hamilton for the Stephenville North & South Texas Railway. The entire line will be 45 miles long, and it is expected to have it completed by October. Track-laying is to begin soon, rails having been received.

St. Louis, Mo.—The Manufacturers' Record is informed by O. H. Rossfeld, secretary, that the Manufacturers' Railway Co. of St. Louis has not fully developed its extension plans. Edward Flad is engineer, Fullerton Building, St. Louis.

Shubuta, Miss.—Lumber manufacturers are reported to be working on a plan to build a railroad about 150 miles long from Laurel, Miss., via Shubuta, Miss., and Butler, Ala., to Myrtlewood, Ala. The John A. Cox Lumber Co. now owns the Shubuta & Southwestern Railway and S. G. Blalock is manager at Shubuta.

Sykesville, Md.—Bids will be received until noon on May 6 for building the proposed railroad from Sykesville to the Springfield State Hospital, two miles. Gov. Edwin Warfield is president of the board of managers at the Fidelity Building, Baltimore, and D. B. Banks is engineer at 306 American Building, Baltimore.

Swansboro, N. C.—Satisfactory progress is reported in the construction of the railroad which is being built from Swansboro to Deppe, on the Atlantic Coast Line Railroad, by the Swansboro Land & Lumber Co., and it is to be in operation by autumn.

Sweetwater, Texas.—The Kansas City, Mexico & Orient Railway Co. has, it is reported, completed grade from Clinton, O. T., to Benjamin, Texas, and trains are running from Benjamin to Sweetwater. Seventy miles of the new grade are in Oklahoma and 80 miles in Texas. Grade is also finished from Sweetwater to San Angelo, Texas, 77 miles.

Velasco, Texas.—Mr. D. T. Bomar writes from Fort Worth, Texas, to the Manufacturers' Record that the Houston & Brazos Valley Railway Co. has acquired 29.2 miles of railroad from the Velasco, Brazos & Northern Railway Co., and it is to be extended northward up Oyster creek to the Santa Fe Railway, and will probably be extended further to Brookshire, Texas, on the Missouri, Kansas & Texas Railway. The directors are Morgan Jones, chairman of the board; D. T. Bomar, president, both of Fort Worth, Texas; Felix Jackson, vice-president and general manager, Brownwood, Texas; Ed. S. Hughes, Secretary and treasurer, Abilene, Texas; J. B. Wilson, William Thompson, both of Dallas, Texas; T. W. House, Houston, Texas; Bassett Blakely, Sandy Point, Texas; E. D. Dorchester, Velasco, Texas.

Waynesville, N. C.—The Waynesville Railway & Power Co. has organized with Col. S. A. Jones of Waynesville as president and Gen. Theodore F. Davidson of Asheville, N. C., as chief counsel.

Wichita Falls, Texas.—The Wichita Falls & Northwestern Railway Co. is reported to have completed part of its line and is operating trains from Wichita Falls to Burk Burnett on the Red river.

Yellville, Ark.—Members of the Marion County Commercial Club are reported to have agreed to raise \$20,000 for an electric railway from Yellville, 20 miles, to the mouth of Cedar creek on the Buffalo river.

### Street Railways.

Baltimore, Md.—The United Railways & Electric Co. will make a preliminary survey for the proposed extension of the Wilkens avenue line so as to connect Morrell Park,

Mount Winans, Lansdowne, Dorchester Heights, Hullsville, Halethorpe, Arbutus, Relay and St. Denis. Thomas A. Cross is general manager.

Charleston, W. Va.—The Kanawha Valley Traction Co. proposes to extend its lines to the South Side and also to St. Albans.

Greensboro, N. C.—The street railway extension of the Greensboro Electric Co. is three miles long from Ashboro street line to a point near the fair grounds, giving the company a total of 10 miles of track.

Henderson, Ky.—The Henderson Traction Co. has filed a mortgage to secure \$150,000 of bonds, of which \$45,000 will be used for extensions.

Kansas City, Mo.—The Blue Valley Railway Co. has been chartered to build an electric line two miles long from a connection with the Swope Park line at 50th street and thence eastward across the Blue River and south toward Swope Park. The incorporators are Alexander Massey, Edwin L. Brown, Joseph S. Chick, Jr., and Willard E. Winner of Kansas City and John Georgen of Independence.

Laurel, Miss.—Frank Gardner and associates have applied to the Board of Aldermen for a street railway and electric-light franchise.

Monroe, La.—The City Council has authorized Mayor Forsythe to advertise for bids for the Jackson street extension of the City Railway.

Owensboro, Ky.—The Owensboro City Street Car Co. will, it is reported, spend \$50,000 to improve its lines, including extensions.

## MACHINERY, PROPOSALS AND SUPPLIES WANTED.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The Manufacturers' Record has received during the week the following particulars as to machinery that is wanted.

Air-compressor.—Henry C. Hopkins, George Building, Lithonia, Ga., wants air-compressor and 30-gallon tank with gauge.

Automatic Sprinklers.—Minge Land & Investment Co., Faunsdale, Ala., wants prices on automatic sprinklers, etc., for oil mill.

Automatic Sprinklers.—Minge Land & Investment Co. wants prices on automatic sprinklers, etc., for oil mill.

Boiler.—Ida Rice Mill, Rayne, La., J. D. Marks, proprietor, wants boiler, 150 horsepower.

Boiler.—Jackson Bros. Company, Whaleyville, Va., wants boiler, 500 or 600 horsepower, to carry working pressure of 125 pounds steam; fuel to be used, shavings and sawdust from planing mill.

Boiler.—F. De Hart Distilling Co., Hartville, Va., wants 100-horse-power boiler.

Boiler.—City of Caldwell, Texas, J. A. Gray, Mayor, wants prices on boiler.

Boiler.—Bessemer (Ala.) Gas Co., W. H. Harrison, Jr., engineer in charge, Biloxi, Miss., wants prices on boiler.

Brick Machinery.—Southern Engineering & Contracting Co., Little Rock, Ark., G. W. Herahman, secretary, wants prices on sand-line brick machinery.

Building Materials.—Board of Education, Charleston, W. Va., wants estimates on mineral wool, mill work, terra-cotta, sheet metal, deadening felt and cement. Address The Chairman.

Canning Machinery.—B. F. Latimer, president, Smithfield, Va., wants full information on canning machinery and the canning industry; will probably buy 30-horse-power boiler, five or six-horse-power engine, two process kettles, etc.

Canning Machinery.—Rock Fruit Farm Co., The Rock, Ga., wants machinery for canning factory. Address J. A. Stafford, proprietor.

Coffin Machinery.—W. C. Wise, Bowman, S. C., wants coffin-manufacturing machinery.

Concrete-pipe Machinery.—Southern Tile & Stone Co., 63 Central avenue, Atlanta, Ga., wants to buy molds and equipment for manufacturing cement or concrete drain and sewer pipe.

Cotton Ginnery.—The Electric Ginnery, E. G. Hood, chairman of committee, Lagrange, Ga., in market for cotton-gin equipment; daily capacity, 100 bales.

Cranes, etc.—Proposals for locomotive cranes, furniture, refrigerators, mosquito bars, electrical supplies, wire, screws, vitrified sewer pipe, iron pipe fittings, hose valves, gauge cocks, fire clay, etc., will be received at office of D. W. Ross, general purchasing officer, Isthmian Canal Commission, Washington, D. C., until May 7. Blanks and general information relating to Circular No. 382 may be obtained from this office or the offices of the assistant purchasing agents, 24 State street, New York; Custom-house, New Orleans; 1086 North Point street, San Francisco, and 410 Chamber of Commerce Building, Tacoma; also from Chief Quartermaster, Chicago; Depot Quartermaster, St. Louis; Depot Quartermaster, Jeffersonville, Ind., and Chief Quartermaster, Atlanta, Ga.

Derrick.—Board of Education, Charleston, W. Va., wants trolley derrick. Address The Chairman.

Drill Press.—See "Machine Tools."

Drill Press.—J. I. Riley Foundry and Machine Works, Charleston, S. C., wants good second-hand drill press, modern make, 30 to 36-inch swing.

Electric Motor.—Henry C. Hopkins, George Building, Lithonia, Ga., wants one-tenth to one-quarter horse-power, 60-cycle, 110-volt motor; alternating current.

Electric Motor.—The Electric Ginnery, E. G. Hood, chairman of committee, Lagrange, Ga., in market for electric motor for gin.

Electric Motors.—Julian S. Starr, Rock Hill, S. C., wants to correspond with manufacturers of small electric motors, one-quarter, one-half and one horse-power.

Electrical Machinery.—Wanted.—60-cycle phase, 110-volt motors, one-quarter to 15 horse-power; also 50-kilowatt, 550-volt railway generator. Address Cumberland Machinery Exchange, Box 385, Knoxville, Tenn.

Electrical Machinery.—See "Railway-shop Equipment."

Engine.—Standard Equipment Co., Mobile, Ala., wants prices on compound marine engine, 7½x12 inches.

Engine.—George Lewis, R. F. D. No. 2, Homer, La., wants second-hand three-cam engine.

Engine.—Bessemer (Ala.) Gas Co., W. H. Harrison, Jr., engineer in charge, Biloxi, Miss., wants prices on engine.

Engine.—F. De Hart Distilling Co., Hartville, Va., wants 50-horse-power engine.

Engine.—Wortham Fire & Light Co., Wortham, Texas, will buy 15 or 20 horse-power engine for fan circuit.

Engines.—Ida Rice Mill, Rayne, La., J. D. Marks, proprietor, wants engine, 150 horsepower.

Engine and Boiler.—B. F. Latimer, Smithfield, Va., wants prices on 30-horse-power boiler and five or six horse-power engine.

Engine and Boiler.—Corson Mica Co., Waymart, Pa.; L. F. Salthé, secretary, wants 25-horse-power engine and boiler for mica mines in Amelia county, Virginia.

Engine Repairs.—Office of Custodian, United States Postoffice, etc., San Francisco, Cal.—Sealed proposals will be received until May 22 for repairs to one 14" and 24"x16" Allfree tandem compound engine, etc., in United States postoffice, courthouse, etc., in strict accordance with drawing and specification. Copies may be had at office of custodian.

Excelsior Machinery.—Moore Real Estate Co., Fitzgerald, Ga., wants excelsior machinery.

Gas Compressors.—Bessemer (Ala.) Gas Co., W. H. Harrison, Jr., engineer in charge, Biloxi, Miss., wants prices on compressors for gas plant.

Gas Plant.—Bids will be received until May 30 by E. A. Sneed, president Town Council, Clifton Forge, Va., for purchase of franchise granting permission for construction, maintenance and operation of gas plant for 30 years; bids to be accompanied by certified check for \$2000; city has population of about 6000; usual rights reserved. Further information will be furnished by J. A. Gleason, chairman Water and Light Committee.

Gas Plant.—Raymond M. Hudson, Box 700, Norfolk, Va., is prepared to receive catalogues and other literature regarding modern gas-plant equipment.

Ginning Machinery.—D. F. Gray, Houma, La., wants machinery for ginning moss.

Heating Apparatus.—See Building Note regarding postoffice and custom-house under Petersburg, Va.

Holisting and Conveying Machinery.—Southern Engineering & Contracting Co., Little

Rock, Ark., G. W. Herahman, secretary, wants sand-handling equipment.

Holisting Machinery.—Cherokee Slate Co., 516 Prudential Building, Atlanta, Ga., wants holisting machinery.

Ice Machinery.—Gonzales Ice & Refrigerating Co., Gonzales, Texas, wants information as to process of ice manufacture and the machinery required.

Iron Work.—J. M. Dale, Russellville, Ky., wants galvanized-iron work.

Kilns.—Peerless Brick Co., Williamson, W. Va., E. S. Juhling, general manager, wants prices on kilns.

Knitting Machinery.—A. H. Bowling, Oliver Springs, Tenn., wants to correspond with makers of knitting machinery.

Lathes.—See "Machine Tools."

Laundry Machinery.—L. F. Hobbs, 732 Law Building, Norfolk, Va., wants, second-hand, in good order, one 100-inch mandrel for laundry, and one damping press, hand-power, for laundry.

Limekilns.—R. E. Findlay, Macon, Ga., wants to correspond with makers of limekilns.

Lock and Approaches.—Sealed proposals for construction of lock and approaches at head of Bayou Lafourche, La., will be received until May 21 at the office of Board of State Engineers of Louisiana, Room 402 Cotton Exchange Building, New Orleans, La. Information will be furnished on application by J. S. Brady, chairman executive committee Joint Organization Atchafalaya Basin and Lafourche Levee Districts, Cotton Exchange Building, New Orleans, or by Board of State Engineers, W. J. McCune, secretary Joint Organization.

Logging Equipment.—Ouachita Navigation & Logging Co., Felsenthal, Ark., wants log-loader for barges and land; also 15 40,000 to 60,000 pound capacity logging cars; new or second-hand.

Looms.—Sajiro Tateish, No. 43 Minamimachi, Takanawa, Shibaku, Tokyo, Japan, wants information regarding machinery for weaving cloth to be finished as imitation leather.

Macadamizing and Curbing.—Sealed proposals will be received by Mayor and Board of Commissioners, Lexington, N. C., until May 3 for macadamizing streets. Approximate quantities are 6000 cubic yards excavation, 15,000 linear feet granite or cement curb, 13,000 linear feet vitrified brick or cement gutter and 38,000 square yards macadam. Bids must be accompanied by certified check for \$1000, payable to Mayor; usual rights reserved. Specifications, forms of proposals, etc., can be obtained from Gilbert C. White, engineer, Durham, N. C., after April 25; Z. I. Walser, Town Clerk.

Machine Tools.—L. F. Hobbs, Law Building, Norfolk, Va., in the market for adjustable arm drill press, combination hand and machine power; machine lathe, horizontal and cross feed, backing gear, open head, six feet between centers; hand drill press with power attachment; all new or second-hand in good order.

Mattress Machinery.—Metzger Mattress Co., Box 753, Atlanta, Ga., wants mattress machinery.

Metal Tubes.—Dogwood Mills, Columbia, Tenn., G. P. Webster, manager, wants prices on metal tube 4½ feet diameter by 60 feet length for conveying water to water-wheel.

Padding Machinery.—S. H. Crum, Orangeburg, S. C., wants prices on machine for stuffing cotton in canvas horse collars.

Paper-pulp Machinery.—Elba Land & Trust Co., Elba, Ala., will buy machinery for manufacturing wood and paper pulp.

Paving.—Sealed bids will be received by Board of Street Commissioners at Mayor's office, Hagerstown, Md., until April 30 for material to be used in paving Potomac street from Church street to north side of Wayside avenue, as follows: About 380,000 vitrified blocks, f. o. b. cars, Hagerstown; about 325 barrels best Portland cement, delivered on street; about 450 tons best sharp sand, delivered on street; samples of vitrified blocks and sand to accompany bids on same; bids to be marked "Vitrified Brick," "Sand" or "Cement," as case may be; usual rights reserved; Luther Peterman, clerk.

Paving.—Sealed proposals will be received by the Sewer, Sidewalk and Water Mains Committee at office of R. D. Budd, City Engineer, Petersburg, Va., until May 2 for constructing about 26,000 square yards of roadway pavement in different streets. Bids will be received for each of the following kinds of pavement: Granite block on sand base, asphalt block on sand base and vitrified block on concrete base. Samples of materials to be used in different kinds of pavement must be deposited with City Engineer at or

before time of making bid. Specifications for each of the above kinds of pavement may be seen at office of City Engineer, 35 West Tabb street, from whom blank proposals can be obtained. Certified check for \$1000 payable to City Treasurer, Petersburg, must accompany each bid. Address bids to Sewer, Sidewalk and Water Mains Committee, care of City Engineer's office.

Paving.—Baltimore (Md.) Board of Awards, City Hall, will receive bids until May 1 to grade, curb and pave a portion of Division street with wood blocks and College alley with vitrified brick. Specifications and proposal sheets can be obtained from B. T. Fendall, City Engineer, City Hall.

Paving and Drainage.—Alternate proposals for paving about 22,500 square yards of street surface with street asphalt, bituminous macadam or vitrified brick and for constructing necessary cement curbing (12,500 feet) and furnishing and laying 6000 linear feet of storm sewers, from 10 to 24 inch, including connections and appurtenances, will be received by Mayor and Board of Aldermen, Natchez, Miss., until May 15. Certified check of \$1000, deposited in accordance with terms of specifications, will be required; further information furnished on application; usual rights reserved; George Elsele, City Clerk; J. N. Hazlehurst, consulting engineer.

Paving Brick.—John M. Stanley, Drawer D, Piedmont, W. Va., wants prices on vitrified paving brick.

Piping.—John M. Stanley, Drawer D, Piedmont, W. Va., wants prices on terra-cotta sewer piping.

Power and Transmission Machinery.—Mansfield Cotton Oil Co., Mansfield, Texas, wants power and transmission machinery; J. H. Harrison, secretary.

Pulverizing Mill.—Corson Mica Co., Waymart, Pa., L. F. Salthé, secretary, wants pulverizing mill, capacity 800, for mica mines in Amelia county, Va.

Pump.—City of Caldwell, Texas, wants prices on pump; J. A. Gray, Mayor.

Quarrying Equipment.—Cherokee Slate Co., 516 Prudential Building, Atlanta, Ga., wants slate-quarrying equipment.

Railway Equipment.—Ouachita Navigation & Logging Co., Felsenthal, Ark., wants 15 to 30-ton locomotive, also 15 40,000 to 60,000-pound-capacity logging cars; new or second-hand.

Railway Equipment.—J. Mercer Carter, Dallas, Texas, wants smokeless-steam or other self-propelling locomotive for street railway, 20 to 30 tons; also 35 to 60-pound relaying steel T rails, with fixtures, in car lots, for immediate use.

Railway Rails.—Peerless Brick Co., Williamson, W. Va., E. S. Juhling, general manager, wants estimates on trackage.

Railway Rails.—J. E. Carson, Charlotte, N. C., wants one to two tons of 16-pound rails, new or second-hand, delivered at Belmont, N. C.

Railway-shop Equipment.—Seaboard Air Line Railway is having specifications prepared for equipment of machinery and tools for new shops now building at Jacksonville, Fla. S. O. Graham, Portsmouth, Va., is engineer in charge.

Railway Equipment.—Wanted, price, description and condition of locomotive tender, 2500 to 3000 pounds. Address H. P. Richardson, 845 Railway Exchange, Chicago, Ill.

Road Construction.—Sealed proposals addressed to W. W. Crosby, chief engineer Maryland Geological Survey Commission, Baltimore, Md., indorsed "Proposals for Improving the Public Highway Between College and Hyattsville, Known as the Baltimore-Washington Road, Section 12, South," will be received until May 1. All proposals must be made on regular forms, to be obtained through the office of the Commission in Baltimore. Work to be done includes grading and macadamizing about two and one-half miles of road according to plans and specifications on file at office of Commission. Proposals must be accompanied by certified check for \$250 payable to the Maryland Geological Survey Commission. Bond with an incorporated surety company in sum not less than amount of contract will be required; usual rights reserved.

Roofing.—Board of Education, Charleston, W. Va., wants prices on tile roofing. Address The Chairman.

Rope Machinery.—J. M. Hause, Siluria, Ala., wants addresses of manufacturers of rope machinery.

Sawmill Carriage.—Colleton Mercantile & Manufacturing Co., Ritter, S. C., wants one second-hand 30 to 40-inch sawmill carriage with track, cable feed, latest dogging devices and set-up blocks, to be used in connection with steam log-turner; Paul Sanders, president.



**Sewerage.**—Sealed bids will be received at office of J. D. Hank, secretary of Local Board of Seventh Ward, 429-430 Law Building, Norfolk, Va., until April 24 for hauling, distributing and laying water-pipes in Seventh Ward as a preliminary to introduction of sewerage system for said ward. Copies of plat and specifications may be seen at residence of W. H. Miner, 29th and Granby streets; office of J. D. Hank or office of C. F. Petrie, C. E., 234 Main street, who will give any further information desired; usual rights reserved.

**Sewerage Materials.**—City of Eatonton, Ga., wants prices on terra-cotta pipe, manhole castings and hard brick for sewerage system. Address E. H. Davis, engineer, Griffin, Ga.

**Sewerage System.**—The Baltimore (Md.) Board of Awards, City Hall, will receive bids until May 15 for additional portions of the storm-water sewerage system. Approximate quantities are as follows: Contract No. 2, 2230 linear feet 96-inch drain, 443 linear feet 54-inch drain, 1034 linear feet 48-inch drain, 1035 linear feet 42-inch drain, 2195 linear feet 36-inch drain, 508 linear feet 33-inch drain, 1292 linear feet 30-inch drain, 2867 linear feet 24-inch drain, 1190 linear feet 20-inch drain, 1711 linear feet 18-inch drain, 2460 linear feet 15-inch drain, 592 linear feet 12-inch drain, 2210 linear feet 12-inch inlet connections, 4000 cubic yards concrete masonry, 70 manholes, 107 inlets; contract No. 3, 2836 linear feet 50-inch by 69-inch drain, 755 linear feet 42-inch by 60-inch drain, 796 linear feet 48-inch drain, 311 linear feet 42-inch drain, 415 linear feet 36-inch drain, 905 linear feet 33-inch drain, 500 linear feet 30-inch drain, 1127 linear feet 24-inch drain, 563 linear feet 20-inch drain, 1013 linear feet 18-inch drain, 1030 linear feet 15-inch drain, 1282 linear feet 12-inch drain, 2040 linear feet 12-inch inlet connections, 52 manholes and 102 inlets. Plans and specifications can be obtained after April 22 from Sewerage Commission, Calvin W. Hendrick, chief engineer, American Building, Baltimore and South streets, Baltimore, Md.

**Shingle Machinery.**—Frank Cooley, Cottondale, Ala., wants shingle machinery for popular and yellow pine.

**Spring-bed Machinery.**—Metzger, Mattress Co., Box 753, Atlanta, Ga., wants spring-bed machinery.

**Steam Shovel.**—Peerless Brick Co., Williamson, W. Va., E. S. Juhling, general manager, wants steam shovel.

**Strainers.**—Sealed proposals will be received by Board of Commissioners, Galveston, Texas, at office of John D. Kelley, City Secretary, until May 16, for taking out and replacing strainers in the city's artesian wells at Alta Loma, Texas. Proposals must be made for taking out and replacing 30 strainers, conditioned that the city reserves the right to discontinue work at any time after two or more strainers have been taken out and replaced, paying contractor for only such work as may have been performed on contract at time of discontinuance of work. Each proposal must be accompanied by certified check payable to order of City Treasurer in sum of 10 per cent. of amount of bid. Bond in sum of 50 per cent. of amount of contract will be required; usual rights reserved; H. C. Lange, Water-works and Sewerage Commissioner; C. G. Wells, City Engineer.

**Street Improvements.**—Sealed proposals will be received by Board of Public Works, Louisville, Ky., until April 29 for reconstructing Oak street between 13th and 15th streets with necessary abutments, retaining walls, stairways, etc.; drawings and specifications on file in office of above board. Bids must be on form prepared by board, copies of which will be furnished on application to Roger G. McGrath, secretary. Full names and addresses of bidders and their sureties must be signed to all proposals. Bidders will be required to make a deposit with City Treasurer in money, certified check or draft for \$3500. After acceptance of work contractor shall deposit with City Treasurer bonds of City of Louisville or of the United States to amount to about 15 per cent. of contract cost of work. Bidders, representatives of the press and property owners are requested to attend the opening of bids and examine plans, proposals and letting sheets; usual rights reserved; Charles B. Norton, John H. Weller and Rudolph F. Vogt, Board of Public Works.

**Tank.**—Henry C. Hopkins, George Building, Lithonia, Ga., wants 30-gallon tank for compressed air, with gauge, etc., all complete. (See "Air Compressor.")

**Telephone Equipment.**—Russell - Mendota Telephone Co., J. C. Pruner, president, Mendota, Va., will want telephone equipment and supplies.

**Telephone Equipment.**—Saluda Telephone Co., Saluda, S. C., wants complete telephone

equipment. Address W. L. Daniel, president.

**Turpentine Machinery.**—Van A. Webster, San Antonio, Texas, wants complete information regarding the turpentine industry, including details of the machinery used.

**Wagon Machinery.**—Trenton Buggy & Manufacturing Co., Trenton, N. C., wants machinery for buggy factory.

**Water-works.**—City of St. Joseph, La., wants information and suggestions relative to water-works; has river or lake three miles distant for supply. Address Newell & Newell, offices in Bank Building.

**Water-works.**—Sealed bids will be received by Mayor and City Council, Madrid, I. T., until May 7 for purchasing all pipe, hydrants, valves, tank and tower, boiler, feed-water heater, duplex, boiler-feed and deep-well pumps, cement, sand and other supplies needed in constructing complete water-works system. Specifications can be obtained from O'Neil Engineering Co., Dallas, Texas.

**Water-works and Sewerage.**—Board of regents of Schools for Deaf and Blind, Romney, W. Va., will receive sealed bids until June 19 for performing all labor and furnishing all material for following objects: First, water main to be laid from present source of water supply on mountain to the institution at Romney; bids are desired separately for completed work of three-inch black wrought-iron pipe, galvanized wrought-iron pipe and cast-iron pipe; second, sewer of about 5000 feet in length of 16-inch tiling to be connected with the closets of institution and leading therefrom; third, several feet of one-inch water pipe and 300 feet of one-inch cloth hose of first-class quality and installing same within buildings of institution; fourth, construction of reservoir of 107,000 gallons capacity of concrete of not less than 16 inches in thickness, and for construction of wooden tank of equal capacity upon steel trestle. Specifications can be obtained at the institution or from the resident agents at Wheeling, Parkersburg and Charleston; usual rights reserved; bids to be sent sealed to principal or secretary of board at Romney. Certified check for \$500 or bond with Citizens' Trust & Guaranty Co., Parkersburg, for same amount must be filed with each bid. W. M. Straus, H. B. Lewis and D. S. Pettigrew compose the committee.

**Well-drilling Machinery.**—W. L. Stewart, Apollo, Pa., wants tools for water-well work.

**Woodworking Machinery.**—Frank & Workman Bros., Silver Hill, N. C., want a 20 to 26-inch four-side planer and matcher and a resaw; second-hand, good condition.

**Woodworking Machinery.**—See "Coffin Machinery."

## MISCELLANEOUS WANTS NOT OTHERWISE CLASSIFIED.

**Automobiles.**—A. L. Sadler, Glen Rose, Texas, will want eight or ten 12 to 20-passenger automobiles; second-hand will do.

**Hotel Equipment.**—A. E. Harp, Plainview, Texas, invites suggestions as to modern improvements for \$45,000 hotel to have 40 rooms. (See Building Note.)

**Steamboat.**—Ouachita Navigation & Logging Co., Felsenthal, Ark., wants steamboat, 30 to 50 horse-power.

**Stereopticon Views.**—W. L. Sloan, care of J. M. Guffey Petroleum Co., Beaumont, Texas, wants to correspond with firms offering stereopticon views or moving-picture apparatus. He wants full information.

**Store Fixtures.**—W. T. Wood Pharmacy Co., 612 Clay street, Lynchburg, Va., wants store fixtures; second-hand may answer.

## Reinforced Concrete Pipe Plant.

That the merits of reinforced concrete pipe are being recognized in the far West is indicated by the announcement of the organization of the Reinforced Concrete Pipe Co. of Los Angeles, Cal., with a capital stock of \$500,000. This company will manufacture under the patents of the Reinforced Concrete Pipe Co. of Jackson, Mich., in the States west of the Rocky mountains. It will build a plant costing \$50,000 to start with, employing 400 men. Some \$20,000 worth of machinery for installation is now en route to Los Angeles. The molding of the concrete pipe is done "on the job," and the iron and steel reinforcement is made in the factory. A large foundry and machine shop will be erected for the latter product. The Reinforced Concrete Pipe Co. of Los Angeles is composed of leading men of that city and section. Its arrangement with the Reinforced Concrete Pipe Co. of Jackson, Mich., to use that company's patents is a tribute to the advantages which the Jackson Company's piping has been found to possess. The demand for this piping is increasing steadily in all parts of the country.

# INDUSTRIAL NEWS OF INTEREST

## H. K. Porter Company.

The H. K. Porter Company of Pittsburgh, Pa., announces the removal of its offices to the 12th floor of the Union Bank Building.

## Standard Scale & Supply Co.

The Standard Scale & Supply Co. of Baltimore, Pittsburg, Washington and Philadelphia has established an office at 407 American Building, South and Baltimore streets, Baltimore, Md.

## Factory Sites Offered.

Good factory sites at Charlotte, N. C., are offered for sale by W. C. White of 41 East Trade street. They are located on railroad, and owner will take stock in promising enterprises wanting to utilize any of the sites.

## Continental Engineering-Construction Co.

The Continental Engineering-Construction Co. of 59 Broadway, New York, announces it has elected Shirley E. Johnson as vice-president. Mr. Johnson was recently with Messrs. Fisk & Robinson, bankers.

## McCrum-Howell Company.

The McCrum-Howell Company of New York announces the opening of its new warehouse and branch, No. 14 McClellan's alley, Baltimore, Md. An inspection is invited of the boilers and radiators kept in stock. William Grier is manager of this branch.

## Shipping Cyclone Drills.

The Cyclone Drill Co. of Orrville, Ohio, has recently shipped special blasthole drillers and loaders to Kershaw & Price, Middleboro, Ky.; Grant Smith & Co., Rosalia, Washington, and F. H. Clement & Co., Brunswick, Md., to be used on their present contracts.

## Link-Belt News.

Mr. J. S. Watson, manager of the Link-Belt Company's drive-chain department, sailed for Europe via the Hamburg-American Line steamship Amerika on April 25. While abroad Mr. Watson will visit the chainmaking plant of Hans Renold at Manchester, England.

## Crescoted Ties for Railways.

Purchasers of construction material for railways will be interested to be informed that the Galveston (Texas) Crescoting Co. has decided to have on hand at all times, ready for immediate shipment, 10,000 first-class standard 6x8 hewn pine ties, crescoted 12 pounds per cubic foot.

## Offices at Dallas, Texas.

The Minneapolis (Minn.) Steel & Machinery Co. has opened a branch office at 262 Commerce street, Dallas, Texas, under the management of J. P. Greenwood. The large demands for the "Twin City" Corliss engines and Muenzel producer gas engine in this territory made it necessary for the company to establish the office, so as to take care of increasing trade.

## Peck-Hammond Heating Plants.

The Peck-Hammond Company of Cincinnati has had an unusually busy season, and conditions have become such that, while retaining its old quarters at 124 East Pearl street, the company has secured the five-story double building adjoining, Nos. 126 and 128 East Pearl street, removing the offices to No. 126. This company manufactures heating, ventilating and sanitary apparatus.

## Manager of Pittsburg Office.

Mr. E. P. Leadbetter has been appointed manager of the Pittsburg office of the Buffalo Forge Co. For the past three years Mr. Leadbetter has been connected with the Philadelphia office of the Buffalo Forge Co., and previous to that time with the factory office in Buffalo, N. Y. Mr. C. L. Dean, who until lately has been in charge of the Pittsburg district, has gone into mining operations in Mexico.

## Some Construction News.

The Ferro Concrete Construction Co. of Cincinnati, whose work in reinforced concrete has attained considerable proportions, has recently secured the contract for another building at Dayton, Ohio. This will be erected for E. J. Barney of that city, to occupy a space 66x123 feet and to be six stories of reinforced concrete. The latest previous building which this company erected in Dayton was for the Y. M. C. A.

## Special Offer in Freight Cars.

Buyers of that class of railway equipment which includes freight cars will serve their best interest by writing to Jos. E. Bowen

regarding his special offer now available. He has for sale 200 40,000-pounds and 50,000-pounds-capacity box, flat and gondola cars, purchased from the Atlantic Coast Line Railroad, free delivery on Atlantic Coast Line, and 100 60,000-pounds-capacity flat cars. These cars pass M. C. B. inspection. There is also on hand a large stock of other equipment for immediate shipment and in excellent condition. Mr. Bowen has his offices at Norfolk, Va.

## Big Orders for Bricks.

Among the big contracts being met by Southern manufacturers in connection with the extensive improvements being made to the iron and steel plants in the Birmingham district are the orders for bricks. The Standard Brick Co. of Bessemer, Ala., is filling an order for more than half a million brick to be used at the new steel plant and furnaces of the Tennessee Coal, Iron & Railroad Co. at Ensley. Shipments are being made every day, and the plant is working full force to meet this and other demands. Less than three years ago the same company had an order for more than 1,000,000 bricks for the Tennessee Company.

## L. O. Wellbacher, Purchasing Agent.

Construction, contracting and development companies have many purchases to effect and frequently do not employ their own purchasing agents. In consequence, the service of an experienced man are often needed in order that purchases may be made to the best effect, and L. O. Wellbacher offers his services for this purpose. Mr. Wellbacher acts as general purchasing agent for any buyer in the field for machinery, equipment and supplies. He has offices at 407 American Building, Baltimore, Md., with someone in attendance day and night. Companies wanting to negotiate with him for purchasing can call, write, telephone or telegraph.

## American Holst & Derrick Co.

The American Holst & Derrick Co., St. Paul, Minn., has established a branch office at 637-639 Wabash Building, Pittsburg, J. N. Kinney, manager. Mr. Kinney was a member of the class of 1899 of Princeton University. He afterward engaged in post-graduate engineering work in New York. From 1902 to 1905 he was mechanical draftsman and later engineer of experimental work for the National Tube Co., and from 1905 to 1907 mechanical engineer of Corliss Machinery & Supply Co. As a designing engineer, as well as a contract-getter, Mr. Kinney has a large acquaintance among users of hoisting equipment in the Pittsburg district, and will doubtless represent the American Holst & Derrick Co. in Pittsburg in an efficient and capable manner.

## New Orleans Roofing and Metal Works

The New Orleans (La.) Roofing and Metal Works will soon occupy its new plant. This company will have a main factory building 319 feet long by 127 feet wide, in which has been installed a can department with capacity of 100,000 per day. Within the next few weeks will be removed to the new location the roofing, blowpipe, cornice and sheet-metal and composition gravel roofing departments. The New Orleans Roofing and Metal Works was mentioned recently as having secured contract for over 4000 squares of composition gravel roofing for the Great Southern Lumber Co.'s big mills at Bogalusa. It also has contract for over 3000 squares for the new plant of the Long-Bell Lumber Co. at Lake Charles and for installing the blow-pipe system for the entire plant.

## Snead Architectural Works.

Among the representative Southern enterprises now prominent in meeting the demand for building material is the Snead Architectural Iron Works of Louisville, Ky. This company has one of the largest and best-equipped shops in its section for making all kinds of structural and ornamental-iron and steel work for buildings. It is the company's policy to continue making improvements and additions to plant and machinery as required. Its property, located on the Southern Railway, measures 285x705 feet, and has separate switches for inbound and outbound material, with a daily capacity of 10 cars. All the shops and yards are well equipped with electric traveling cranes and derricks. Operations last year extended eastward into Virginia, westward into Iowa, and throughout all Southern and Southwestern States as far as the Gulf. Among other large structures fabricated and erected by the company last year was the Lincoln Savings Bank, Louisville, Ky., 15 stories high. Several large contracts are now on file, including orders for steel-frame buildings at Mo-

bile, Ala., and Memphis, Tenn. The Shead Architectural Iron Works has a large stock of structural materials ready for shipment and is prepared to meet promptly any additional contracts.

#### Public Sale of Manufacturing Plant.

Any manufacturer who can utilize a manufacturing plant or any part of a modern equipment now located in New England will find it advantageous to investigate the proposed sale of the American File Co. property at Central Falls, R. I. This property includes about 88,000 square feet of land, various factory buildings, warehouses, office building, machinery houses, etc., together with some modern mechanical equipment. The latter includes Harris-Corliss engine of 200 horse-power, two Cahall boilers of 150 horse-power each, etc. The owner has no further use for the plant and has decided to offer it for sale at auction on May 2. A descriptive catalog has been issued giving full details and specifications. It can be obtained by addressing Messrs. G. L. & H. J. Gross, Union Trust Co. Building, Providence, R. I. Messrs. Harold J. Gross and James H. Hurley of Providence are the auctioneers in charge.

#### Cook Stoves for Hot Weather.

Many a housewife is wondering how she will pass through the coming summer months with the stove she well knows will make the kitchen unbearably hot, to say nothing of the dirt, dust and ashes that will add to the discomfort. There is a way out of it all—a way that not only lessens the work and keeps the kitchen cool, but that also reduces fuel expenses. This convenience, comfort and economy is promoted by using the "New Perfection Wick Blue Flame Oil Cook Stove." The "New Perfection" gives a strong working flame at moment of lighting. The flame is always under immediate control, and can be raised or lowered instantly. The convenience of this will be understood when it is considered that while the flame of one burner is boiling the kettle or roasting a large joint, that of another can be reduced to simmering point. Then the comfort of it. While the flame of the "New Perfection" is intensely hot, yet the heat is not thrown off into the kitchen, because it is concentrated by blue-enameled chimneys. This stove is made in three sizes, with one, two and three burners. Another home comfort is the "Rayo Lamp," which produces a light of unusual brightness, yet soft and mellow—a light that will not hurt the eyes. It is made of brass throughout and nickel-plated.

#### Green Fuel Economizer Co.

The Green Fuel Economizer Co. of Mattawan, N. Y., has found it necessary to remove its Chicago office from the Monadnock Block to the Old Colony Building in order to secure more room. This company has been especially active in mechanical-draft work for boiler plants, having recently installed some of the largest overhead wheels ever built, notably the 18-foot 6-inch by 6-foot wheels supplied to the Grand Rapids Railway Co. and the 19-foot 6-inch by 7-foot wheels installed for the St. Louis & Suburban Railway. Mechanical draft and fuel economizers are frequently put in together because they are beneficial under similar conditions, and are complementary in promoting fuel economy, each helping the other in the saving of coal. The mechanical-draft outfit makes it possible to utilize the economizer to the fullest extent, to burn the cheapest grades of fuel, to handle heavy, sudden overloads on the boilers, to get along with fewer boilers, to dispense with expensive chimneys, to obtain all the draft wanted in all conditions of weather and to secure more thorough combustion. Besides mechanical-draft work the Green Company offers heating and ventilating apparatus and artificial-drying outfits for brickyards, wood-working plants, paper mills and other industrial establishments.

#### Sales by Brown-Cochran.

Recent sales are reported by the Brown-Cochran Company of Lorain, Ohio, as follows: New England Refrigerator Co., Norwich, Conn., two-ton belt-driven compressor; John A. Steele, Huntingdon, Pa., 15-ton steam-driven compressor; J. H. Connors & Co., Franklin, Pa., four-ton belt-driven compressor with 12-horse-power Brown gas engine; Raleigh Bottling Works, Beckley, Va., 50-ton refrigerating plant direct connected to Corliss engine; W. E. Taylor, Washburn, Ill., one-ton belt-driven compressor with three-horse-power Brown gas engine; Flood-Pratt Dairy Co., Cleveland, Ohio, two-ton belt-driven compressor; Hotel Secor, Toledo, Ohio, 10-ton steam-driven compressor; Whann Lithia Springs Co., Franklin, Pa., four-ton belt-driven compressor; Iowa Condensed Milk

Co., West Liberty, Iowa, 12-ton refrigerating plant direct connected to Corliss steam engine; Illinois Athletic Club, Chicago, 20-ton refrigerating compressor direct connected to Corliss engine; Yegen Bros., Billings, Mont., 20-ton compressor, belt driven; Kansas City (Mo.) Hospital, 12-ton belt-driven compressor; James A. Groseclose, Marlon, Va., 10-ton belt-driven compressor for 20-horse-power Brown gas engine; Gluter Lumber & Improvement Co., Richmond, Va., 65-horse-power producer gas engine complete, and Simplex Motor Car Co., Mishawaka, Mich., 100-horse-power producer and vertical gas engine. The Brown-Cochran Company also reports the usual number of carload shipments of Brown gas engines and has some undelivered.

#### General Electric Co.'s Jamestown Exhibit.

Although electricity plays an important part at the Jamestown Exposition, the management has not set aside a separate building for electrical exhibits. Two principal exhibit halls have been built, the Machinery and Transportation Building including the exhibits of electrical machinery. In this building the main substation and distributing switchboard of the exposition are located. The electrical apparatus in the substation, as well as that used by the Exposition Company around the grounds, was furnished by the General Electric Co. of Schenectady, N. Y., and this company has been confined to illustrating various industrial and domestic applications of electricity. This exhibit is located adjacent to the substation and is filled with a most interesting variety of devices, many operated by electric motors. One section has been fitted up as a model electric kitchen with a spacious dining-room adjoining, which will be used as reception quarters for guests. An interesting feature is the small refrigerating plant operated by electric motor so arranged that the refrigerating liquid passes through an adjacent section of the railing, which, of course, is covered by a heavy white frost. Another unique motor application is seen in the Seth Thomas Clock with 24-inch dials in full operation, regularly wound by an electric motor. An electrically-operated floor surface and polisher is worthy of comment. A motor-driven washing machine attracts the housewife as much as the sewing machine operated by electricity. The electric cream separator is now quite generally used, and the company is furnishing the motors for driving an exhibition where cows are milked by electricity in another part of the grounds. Modern bakeries are now equipped with electricity for operating as well as lighting, and an electric dough mixer is shown by the General Electric Co. Two designs of electric hair driers and the electric heating pad are shown. The electrically-operated circular saw and new form of electric bench drill, motor-driven lathe and a small portable forge fitted with electric blower form an interesting part of the exhibit. There are also a number of small grinders, buffers and polishers for jewelers and small shops. Several types of ventilating blowers are shown, and the exhibit of ordinary electric fans is complete. In the electric kitchen is to be found an elaborate collection of the General Electric Co.'s electric heating and cooking utensils in full operation. The dining-room is attractively fitted up in Finnish oak with dark-red bur-lap wall covering, and contains a handsome mantel of Flemish design. Instead of the gas log the luminous electric radiator has been installed in the fireplace. In the ceiling of the dining-room a comprehensive showing is made of the company's incandescent units, including the Gem units of various sizes, and the new Tantalum lamps, all equipped with various forms of Holophane reflectors. The main part of the exhibit is illuminated by General Electric enclosed arc lamps fitted with concentric diffusers. Edison incandescent lamps are used throughout for lighting the exposition buildings, and the General Electric Co. exhibits this type of lamp, as well as some of the other standard Edison lamps, with interesting information as to the annual production, etc., of these lamps. As indicative of certain uses of the electric motor an Edison business phonograph with shaving device is exhibited, as well as a talking phonograph, all operated by small motors. The talking phonograph is used to explain the operation of the other phonograph and various devices in the exhibit. An electrically-driven house pump is shown in operation, and an electric renovator in the form of a carpet sweeper forms an unusually interesting application of the electric motor. The General Electric Co. will also furnish for use about the exposition grounds more than a score of powerful electric searchlights, and in the exhibit made by the Navy Bureau of Equipment is to be

found a small Curtis steam turbine of the type and size used on board ship. Here, also, this company is exhibiting its new electric fire room timing device.

#### Orders for Helne Boilers.

The Helne Safety Boiler Co., St. Louis, Mo., reports the following recent sales: Asano Cement Co., Tokio, Japan, four boilers aggregating 900 horse-power; Atlantic, Gulf & Pacific Co., four 200-horse-power boilers for two hydraulic dredges, fifth order; American La France Fire Engine Co., Elmira, N. Y., two 230 horse-power; American Locomotive Works, Richmond, Va., four 400-horse-power boilers; Bridgeport (Conn.) Forge Co., three 250-horse-power boilers; Crown Cotton Mills, Dalton, Ga., two 400-horse-power boilers; Home Brewery, Columbus, Ohio, three 200-horse-power boilers; Hudson Companies, two 316-horse-power boilers, making a total to this company of 4513 horse-power on 11 orders; Independence (Kan.) Cement Co., three 400 horse-power, second order; James S. Kirk & Co., Chicago, two 500-horse-power boilers; Joseph J. Little Building, New York, three 275-horse-power boilers; Quincy Horse Railway & Carrying Co., Quincy, Ill., three 316 horse-power; city of New York for Ridgewood Pumping Station, eight 300 horse-power; Pueblo & Suburban Traction & Lighting Co., Pueblo, Col., one 378 horse-power; Denver (Col.) Gas & Electric Co., three 524-horse-power boilers; Texas Company, Beaumont, Texas, 32 200-horse-power boilers for eight pipe line oil pumping stations in Texas; Victor Talking Machine Co., Camden, N. J., two 316 and two 270 horse-power; Warren (R. I.) Manufacturing Co., one 323-horse-power boiler, making a total of 2881 horse-power on six orders; Willamette Pulp & Paper Co., Oregon City, Ore., one 250 and two 365 horse-power, third order; U. S. Navy Department, for Norfolk Navy-yard, two 428-horse-power boilers and four 350-horse-power boilers; U. S. Navy Department, for Charleston Navy-yard, through Muralt & Co., New York, four 350-horse-power boilers; Philadelphia House of Refuge, Glen Mills, Pa., four 250 horse-power.

#### To Prevent Railway Accidents.

It is announced that an invention designed to minimize the possibility of railway collisions has been perfected by C. B. Mitchell of Franklin, Texas. The inventor claims simplicity for the device, at the same time believing its use will be a perfect safeguard against collisions, either head or rear-end. He states that each part of it is a demonstrated possibility, and the cost of installation is inconsiderable as compared with the element of safety obtained by its use. In a brief description of the invention Mr. Mitchell states that a single wire is strung in separate sections along the full length of the track, each section reaching from a station or siding, where trains may be allowed to pass to the next siding or station. The wire is strung by the side of the track at any suitable height and distance, and trains in passing over this track are in constant connection with the wire by the use of a trolley pole and wheel. When two trains get in a position to collide, or on the same section of wire, an electrical circuit is completed through the wire and the two trains connecting each end of it to the ground. This being accomplished, an electric gong is set ringing in the cab over each engineer's head, and by the use of telephone equipment the engineers may communicate with each other at once. The electrical current is furnished by batteries of suitable type placed in connection with the gong, after the manner of batteries on a telephone, and, like the telephone battery, is in use only when the gong is made to ring by the engines getting on one section of wire at the same time. As it is customary for trains to approach stations under full control, the danger of collision at points between the ends of different sections of wire is inconsiderable, but if it becomes necessary for trains to occupy dangerous positions on the main line, the end of the conducting wire may be grounded by a special device and incoming trains notified of their position. The inventor states that he wishes to sell his rights, or will assign an interest in the device to capitalists furnishing the means for a full development of the idea.

#### TRADE LITERATURE.

##### New Wesco Publication.

The Wesco Supply Co. has issued a new bulletin (No. 75) pertaining to the products of its new telephone factory. This publication covers a complete list of magneto telephones and switchboards, as well as prices on materials and supplies for telephone line construction. The Wesco Supply Co. attributes the phenomenal demand for Wesco

telephones this season to the standard of quality which it has persistently maintained in the preparation of all its telephone equipment. For copy of bulletin address company at St. Louis, Mo.

#### New Buffalo Forge Literature.

A leaflet dealing with improved types of Buffalo planing-mill exhausters, dust-separators and volume exhausters has been issued. It is published by the Buffalo Forge Co. of Buffalo, N. Y., manufacturer of the equipments named.

#### The New Era Engine.

An appropriate hanger for manufactories and other plants and establishments wherein power machinery plays a part is seen in the picture of the 100-horse-power New Era gas and gasoline engine. The engine is manufactured by the New Era Gas Engine Co. of Dayton, Ohio, which is distributing the hanger.

#### Lawrence Monthly Calendars.

The F. D. Lawrence Electric Co. of Cincinnati is about to issue a series of monthly calendars, beginning with June and running to May, 1908. The first-of-the-year calendars are old, and a series of bright, attractive ones coming out now will attract a great deal more attention than if they were simply one of a mass sent out at the same time.

#### Cement Tiles—2500 Daily.

An illustrated leaflet now being distributed asks: "Do you want to make drain tile in sizes two to six inches? Do you want to make them fast and cheaply, but of perfect quality?" People who are interested in this subject will find answers to the questions and how to make 2500 drain tiles daily in the leaflet. As the Besser Manufacturing Co., Alpena, Mich., to send you a copy of the leaflet.

#### From Users of Emerson Pumps.

Any operator in the industrial field who may be required to purchase a pump is advised to investigate the Emerson design. In a pamphlet now being distributed appear numerous letters from prominent engineers, manufacturing companies, engineering departments, construction companies, municipal officers and various others who have used the Emerson pump and found its merits warranting emphatic statements in their favor. The Emerson Steam Pump Co., Alexandria, Va., builder of the Emerson pump, can furnish copies of the pamphlet.

#### New Electric Air Drill.

Booklet 20A, issued by the Ingersoll-Rand Company, 11 Broadway, New York City, 20 pages, 11 illustrations, describes the new Temple-Ingersoll electric air drill. This novel device not only solves the problem of employing the electric current in the driving of rock drills, but avoids entirely the conditions which make the successful employment of the electric drill impossible. The drill is air-operated, with advantages of its own, especially in the increased force of the blow struck and the great saving of power, and it should be known by all who have any interest in rock cutting.

#### Where to Go This Summer?

Where to go this summer? That is a question soon to be considered by thousands of people who will be looking forward to the season of recreation during the warm period of the year. New England is one of the most attractive regions during the summer months, and information regarding its domain is always interesting. Its features are told well in the Boston & Maine Messenger, the April number of which is now being distributed. The Boston & Maine Railroad's passenger department issues the Messenger, and invites inquiries for specimen copies. Write to the Boston (Mass.) offices.

#### Nernst Lamps in Dixie.

That the South is appreciating the latest improvements in electric lamps is indicated in a rather interesting publication now being distributed. This publication is the Nernst Glower, and it tells of the remarkable progress of the glower lamp in Baltimore, Wilmington, Washington, Roanoke and Savannah. The extent to which the Nernst lamp is used in the cities named above proves that Dixie is always ready to adopt improved devices for bettering lighting facilities. The Nernst Glower is published by the Nernst Lamp Co. of Pittsburg, Pa., manufacturer of the lamp referred to.

#### Sprague Electric Fans.

In a few more weeks the electric fan will be in general use throughout the country because of the warm weather. A few weeks in advance is therefore a proper time for fan users and dealers to consider what kind



of fan they will select for use and sale. A timely pamphlet on electric fans is catalogue No. 315, issued by the Sprague Electric Co., 527 West 34th street, New York. It tells of the company's direct-current fan motors, midget exhaust fans, alternating-current fan motors, ventilating-fan motors and other types in their various forms and with convenient accompaniments. The Sprague Electric Co. invites inquiries for its pamphlet.

#### The Important Question—Quality.

An important question when the building owner, the architect or the contractor is about to select roofing is the quality of the material selected. Prepared roofings are extensively used at present, and the demand is increasing every day. Because of the increasing cost of various roofing manufacturing materials it is important that the purchaser of roofing should be careful that the quality of the kind he orders does not deteriorate. In The Ridgepole for April this important question of quality is fully considered and some pertinent facts are presented regarding it in connection with Rex Flintkote roofing manufactured by Messrs. J. A. & W. Bird & Co., 34 India street, Boston, Mass. This firm invites inquiries for the April Ridgepole.

#### Complete Store Fronts—Southern Made.

That building activity has been unusual in its extent throughout the South during the past year is well known to building contractors, architects and manufacturers of the materials required. Many modern structures for stores and for other business purposes are being erected in the large and small cities and towns, and consequently there is a great demand for building material and supplies. Southern manufacturers are prominent in meeting this demand, and it is pertinent to call attention to the facilities of the Southern Foundry Co., Owensboro, Ky. This company has an extensive modern establishment for the manufacture of complete store fronts, and its designs and products are being called for in large variety and quantity by discerning designers and purchasers. The Southern Foundry Co. presents for consideration by those interested an interesting pamphlet. This publication indicates the character and extent of the company's products and offerings, including ironwork, woodwork, galvanized cornice, plate and D. S. A. glass, metal ceilings for banks and other offices and stores, iron stairways, fire escapes, elevators, dumbwaiters, etc. From the announcements of the facilities which the Southern Foundry Co. possesses it is evident that any building contractor, building architect or building owner will serve his best interests by consulting with the company when about to make selections of or contracts for building materials.

#### The Cold Truth as to Insulation.

There are numerous instances in building construction, in the erection of industrial plants and various avenues of industrial activity wherein the factor of insulation must be given careful consideration. This is a subject which is given complete attention in an illustrated publication prepared for the purpose of presenting valuable data and hints on the character of insulating material to be used in order that the best possible results may be attained by the user. Especially in ice and cold-storage plants is the insulation an important factor in the results to be obtained, but refrigerator cars, breweries, ice-storage houses and other establishments also call for insulating materials of true and tried value. Kelly's "Lith and Linofelt" is expressly dwelt upon in the publication referred to, its value being shown for the insulation of cold-storage plants, refrigerator cars, breweries, ice-houses, etc., also for deafening, sheathing, building felt and pipe and boiler covering. The material is odorless, antiseptic and vermin-proof, and is made from rock-fiber mineral wool and degummed flax fiber. So confident is the manufacturer of its superiority to other products of a similar nature that careful comparative tests are invited. The Union Fiber Co. of Winona, Minn., is the manufacturer of Kelly's "Lith and Linofelt." It invites inquiries for its book of facts, believing that no discerning architect, contractor, engineer or other persons interested in insulating material will fail to appreciate the meritable features of Kelly's "Lith and Linofelt."

#### Reedy River Power Co.

The Reedy River Power Co. has awarded contract to Messrs. C. R. Willard & Co. of Spartanburg, S. C., for the construction of its proposed dam across Reedy river and to build power-house. This com-

pany organized several months ago with a capital stock of \$50,000 and N. B. Dial of Laurens, S. C., as president, and the location of the development is near Laurens. The dam will be 30 feet high, about 300 feet long, with 280-foot spillway, developing a minimum horse-power of 1500 and an ordinary horse-power of 3000. Contract calls for the completion of the dam and power-house by January 1, 1908, when the equipment of machinery will be installed.

#### Kentucky-Tennessee Oil Fields.

[Special Cor. Manufacturers' Record.]  
Barboursville, Ky., April 22.

From indications the coming summer season will be the most prosperous in the five years' history of the Kentucky oil field. Prices on crude oil are the highest in three years as a result of recent advances, and the opening of new production in several sections widens the area of activity. Many operators from Northern and Eastern fields have begun investigations of Kentucky-Tennessee territory, now that the advantage in price is with the operator in this region. Old operators who had ceased drilling and developing their holdings under former oil prices are looking around and are letting new drilling contracts.

Two firms are now in the Kentucky crude-oil market. The Standard Oil Co., which has vast interests in the State in the shape of pipe lines, storage tanks, pumping stations and leases, is paying \$1.20 for the better grade of oil. The Indian Refining Co., a Northern concern, controlled, it is said, by the Swifts, is paying \$1.23 for the better grade oil. This concern has a refinery at Georgetown, Ky. These prices denote a total advance of 31 cents per barrel in the selling price of oil, former prices, which averaged 89 cents per barrel, prevailing all last winter.

There are 10 established fields in Kentucky and one on the Tennessee side. All these divisions are connected by pipe lines belonging to the Standard Oil Co. During the winter drilling was confined to three or four of these divisions, but since the advance in the crude-oil market smaller fields are taking a new lease of life and production of oil is rapidly increasing. Activity is centered in Wayne county, where probably half of the drilling rigs are located. Wolfe county is next to Wayne in interest. Knox, Whitley, Cumberland, Estill, Bath-Rowan, Floyd-Knot and Clinton fields are all producing oil, and show increased activity. On the Tennessee side Fentress county, the only established field, will be punctured by new operators.

During the past few days some important strikes have been made in several of the Kentucky divisions. Operators are expanding work and are not limiting their efforts to regular pools. This tendency to go outside of the proven area has led to failures in some instances, but with higher oil prices the average operator no longer hesitates to take the risk of a dry hole.

Although oil has been developed in marketable quantities in only 10 counties of Kentucky, it has been found in between 40 and 50 counties of the State. Many of the counties in which oil has been found, but not thoroughly tested, are now receiving attention, and the prospects for additions to the producing area are bright.

In Todd and Logan counties, where scattered drilling has been attempted from time to time for several years, an Eastern firm has had representatives this week, and 2000 acres of leases in the aggregate have been secured. In Hart county drilling has started, and Warren county is being developed for both oil and gas. Scott county is being developed by the Indian Refining Co. Several strikes have already been made. Along the Ohio river a num-

ber of prospectors are at work in various counties into which they believe the Indiana and Illinois oil sands extend.

W. S. HUDSON.

#### For the South.

The April issue of the *Southern Field*, the illuminating organ of the aggressive land and industrial department of the Southern Railway Co., in charge of Mr. M. V. Richards, is quite appropriately devoted to the Jamestown Exposition, and is bound to be an effective medium in making the exposition at Norfolk a means of increasing practical interest in the movement of men and money to the South.

### FINANCIAL NEWS

#### Review of the Baltimore Market.

Office MANUFACTURERS' RECORD,

Baltimore, Md., April 24.

Dullness continued to be the chief characteristic of the Baltimore stock market during the past week, and the business was without particular interest.

In the trading United Railways common sold at 13 for both the free stock and the trust certificates; the income bonds from 54 to 54½; the funding 5s from 85 to 85½, reacting to 84½; do. scrip, 85; United 4s from 87½ to 88½; United Light & Power 4½s, 92½ to 93; Gas 6s, 104½; do. 4½s, 94½; Seaboard 4s, 73½ to 74½; do. 10-year 5s, 98½ to 99½; Mt. Vernon-Woodberry Cotton Duck 5s, 80½ to 80; G. B. S. common, 5 to 4½; do. incomes, 24 to 22; do. 1sts, 54 to 52½; Consolidated Cotton Duck preferred, 30.

Merchants' Bank sold at 170; Western Bank, 35; Mercantile Trust, 126; Maryland Casualty, 62; Fidelity & Deposit, 130.

Other securities were traded in as follows: Merchants & Miners' Transportation Co., 265 to 270; Anacostia & Potomac 5s, 101½ to 101¾; Charleston Consolidated Electric 5s, 93½ to 93¾; Virginia Century, 92¾; Northern Central Railway stock, 89½ to 91; do. fractions, 89 to 90; Western Maryland Railroad 4s, 75 to 74½; West Virginia Central 6s, 105; Augusta Railway & Electric 5s, 101½; Atlantic Coast Line of Connecticut 4s, certificates, 85; Central of Georgia 5s, 108½; Coal & Iron Railway 5s, 102½; Georgia & Alabama 5s, 106 to 106½; Brush Electric 1st 5s, 102¾; George's Creek Coal & Iron, 80; Georgia, Carolina & Northern 5s, 107¾; Consolidation Coal, 91; Florida Southern 4s, 91½; Georgia Southern & Florida 5s, 108¾ to 109; Atlantic Coast Line 4s, 95½; United Investment Co. of Philadelphia 5s, 84½ to 85½; Lexington Railway 5s, 100; Norfolk Railway & Light 5s, 97½; City & Suburban (Washington) 5s, 101½.

#### SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended April 24, 1907.

Railroad Stocks.	Par.	Bid.	Asked.
Atlantic Coast of Connecticut	100	248	265
Georgia Southern & Florida	100	...	...
Georgia Sou. & Fla. 1st Pfd.	100	...	...
Georgia Sou. & Fla. 2d Pfd.	100	...	...
Maryland Electric Railways	100	...	...
Seaboard Company Common	100	...	...
United Railways & Elec. Co.	50	12¾	13¾
Bank Stocks.			
Citizens' National Bank	100	30¾	31¾
Commer. & Far. White Cfs.	100	119	...
Commer. & Far. Blue Cfs.	100	125	...
Drovers & Mech. Natl. Bank	100	25	...
Farmers & Mer. Natl. Bank	40	48	51
German Bank	100	...	105
National Bank of Baltimore	100	115	...
National Exchange Bank	100	...	180
National Howard Bank	100	124	...
National Marine Bank	30	37¾	39
National Union Bank of Md.	100	118	120
Trust, Fidelity and Casualty Stocks.			
Fidelity & Deposit	50	130	132½
International Trust	100	...	150
Maryland Casualty	25	61	62
Union Trust	50	69	...
U. S. Fidelity & Guaranty	100	110	112
Miscellaneous Stocks.			
Ala. Con. Coal & Iron	100	...	65
Ala. Con. Coal & Iron Pfd.	100	85¾	88½
Consolidation Coal	50	30	31
Con. Gas, Elec. Lt. & P. Pfd.	100	...	80
Consolidation Coal	100	88	92
G. B. S. Brewing Co.	100	4½	...

George's Creek Coal	100	75	80
Mer. & Miners Trans. Co.	100	265	270

#### Railroad Bonds.

Albany & Northern 5s, 1946	...	85	...
Atlanta & Charlotte Exten. 4½s	100	...	...
Atlantic Coast Line 1st 4s, 1962	...	86¼	85½
Atlantic Coast Line 4s, Cfs., 1962	...	85	...
Atlan. Coast Line (S. C.) 4s, 1948	...	89¼	...
Carolina Central 4s, 1918	...	92	...
Charleston & West. Car. 5s, 1946	...	109	110
Char. Col. & Aug. 1st 5s, 1919	...	107	...
Char. Col. & Aug. 2d 5s, 1919	...	105	...
Coal & Iron Railway 5s, 1929	...	102¼	102½
Columbia & Greenville 1st 6s, 1916	111½	113	...
Florida Southern 4s, 1940	...	90	92
Georgia & Alabama 5s, 1945	...	106	106½
Georgia, Car. & North. 1st 5s, 1929	...	107½	108
Georgia Pacific 1st 6s, 1922	...	117	118½
Georgia Sou. & Fla. 1st 5s, 1915	...	108¾	109
Maryland & Pennsylvania 4s, 1951	...	92½	...
Petersburg, Class B 6s, 1926	...	121	123
Piedmont & Cum. 1st 5s, 1911	...	100	103
Richmond & Danville 5s	...	...	109
Seaboard Air Line 4s, 1950	...	74	74½
Seaboard Air Line 5s, 10-year, 1911	...	99	99½
Western Maryland new 4s, 1952	...	74½	75
Western North Car. Con. 6s, 1914	...	...	111
West Virginia Cen. 1st 6s, 1911	...	106	106½
Wilmington & Wel. Gold 5s, 1935	110	...	...

#### Street Railway Bonds.

Anacostia & Potomac 5s, 1949	101	101½
Atlanta Con. Street Rwy. 5s	102	...
Augusta Rwy. & Elec. 5s, 1940	101¼	...
Baltimore City Pass. 5s, 1911	102¼	...
Baltimore Traction 1st 5s, 1929	110	...
Charleston City Rwy. 5s, 1923	103	106
Charleston Con. Elec. 5s, 1909	93½	...
Citizens' Ry., Light & Power 5s	85	90
City & Suburban 5s (Balt.), 1922	108¾	109
City & Suburban 5s (Wash.), 1948	101¼	...
Knoxville Traction 1st 5s, 1928	103	105½
Lake Roland Elevated 5s, 1942	110	115
Lexington Railway 1st 5s, 1949	99	100
Macon Ry. & Lt. 1st Con. 5s, 1955	91	95
Maryland Electric Railways 5s	...	85½
Norfolk Railway & Light 5s	...	97½
North Baltimore 5s, 1942	111	118
United Railways 1st 4s, 1949	86¾	87½
United Railways Inc. 4s, 1949	54	54½
United Railways Funding 5s	...	84¾

#### Miscellaneous Bonds.

Consolidated Gas 6s, 1910	104½	104¾
Consolidated Gas 5s, 1930	109½	...
Consolidated Gas 4½s	94	95
G. B. S. Brewing 1st 5s	52	52½
G. B. S. Brewing 2d Income	22½	23
Hammond Telephone 5s	85	88½
Mt. Vernon-Woodberry Cotton Duck 5s	79½	80
United Elec. Lt. & Power 4½s	93	...

#### SOUTHERN COTTON-MILL STOCKS.

Quotations Furnished by Hugh MacRae & Co., Wilmington, N. C., for Week Ending April 22.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	81	84
Aiken Mfg. Co. (S. C.)	85	88
Anderson Cotton Mills (S. C.)	91	...
Arkwright Mills (S. C.)	112½	118
Augusta Factory (Ga.)	80	85
Avondale Mills (Ala.)	112	116
Belton Mills (S. C.)	105	110
Biola Mfg. Co. (Ga.)	...	113½
Brendon Mills (S. C.)	128	...
Calhoun Cotton Mills (S. C.)	120	120
Chadwick Mfg. Co. (N. C.) Pfd.	...	100
Chiquola Mfg. Co. (S. C.)	102	102½
Clifton Mfg. Co. (S. C.)	116	120
Clifton Mfg. Co. (S. C.) Pfd.	...	101
Clifton Cotton Mills (S. C.)	150	...
Columbus Mfg. Co. (Ga.)	96	101
Courtenay Mfg. Co. (S. C.)	...	100
Dallas Mfg. Co. (Ala.)	...	93
Darlington Mfg. Co. (S. C.)	94	98
Eagle & Phenix Mills (Ga.)	120	135
Easley Cotton Mills (S. C.)	133½	...
Enoree Mfg. Co. (S. C.)	...	80
Enoree Mfg. Co. (S. C.) Pfd.	...	100½
Enterprise Mfg. Co. (Ga.)	90	94
Exposition Cotton Mills (Ga.)	200	...
Gaffney Mfg. Co. (S. C.)	...	93
Greenville Cotton Mills (Ga.)	58	79½
Graniteville Mfg. Co. (S. C.) 1st Pfd.	90	95
Graniteville Mfg. Co. (Ga.)	105	...
Greenwood Cotton Mills (S. C.)	93	97½
Grendel Mills (S. C.)	115	120
Henrietta Mills (N. C.)	...	175
King Mfg. Co., John P. (Ga.)	100	103
Lancaster Cotton Mills (S. C.)	108	112
Lancaster Cotton Mills (S. C.) Pfd.	98	98½
Lansley Mfg. Co. (S. C.)	92	96
Laurens Cotton Mills (S. C.)	...	160
Limestone Mills (S. C.)	120	125
Lockhart Mills (S. C.)	98	100
Lockhart Mills (S. C.) Pfd.	97	100
Louise Mills (N. C.)	90	96
Louise Mills (N. C.) Pfd.	...	98
Marbleboro Cotton Mills (S. C.)	88	91½
Marietta Mills (N. C.)	165	185
Mills Mfg. Co. (S. C.)	100	106
Mills Mfg. Co. (S. C.) Pfd.	90	101
Monaghan Mills (S. C.) Pfd.	110	115
Monarch Cotton Mills (S. C.)	112	112½
Newberry Cotton Mills (S. C.)	128	140
Norris Cotton Mills (S. C.)	115	117½
Olympia Cotton Mills (S. C.) Pfd.	...	75
Orangeburg Mfg. Co. (S. C.) Pfd.	80	97
Orr Cotton Mills (S. C.)	...	100
Pacolet Mfg. Co. (S. C.)	...	174
Pacolet Mfg. Co. (S. C.) Pfd.	101¼	103
Pelzer Mfg. Co. (S. C.)	170	175
Piedmont Mfg. Co. (S. C.)	170	177
Poe Mfg. Co. (S. C.)	...	126½
Richland Cotton Mills (S. C.) Pfd.	...	82½
Raleigh Cotton Mills (S. C.)	90	106
Roxon Mills (S. C.)	...	140
Sibley Mfg. Co. (Ga.)	...	65
Spartan Mills (S. C.)	150	...
Springstein Mills (S. C.)	...	100
Trion Mfg. Co. (S. C.)	130	142
Tuapeau Mills (S. C.)	155	200
Union-Buffalo Mills Co. 1st Pfd.	73	77
Victor Mfg. Co. (S. C.)	120	130
Warren Mfg. Co. (S. C.)	...	100
Warren Mfg. Co. (S. C.) Pfd.	106	...
Washington Mills (Va.)	...	96
Washington Mills (Va.) Pfd.	100	115
Whitney Mfg. Co. (S. C.)	145	150
Wicliessett Mills (N. C.)	122	125
Woodruff Cotton Mills (S. C.)	...	125

Quotations Furnished by William S. Glenn, Broker, Spartanburg, S. C., for Week Ending April 22.

	Bid.	Asked.
Abbeville Cotton Mills (S. C.)	80	83
Aetna Cotton Mills (S. C.) Pfd.	...	70
Aiken Mfg. Co. (S. C.)	82	89
American Spinning Co. (S. C.)	122	125
Anderson Cotton Mills (S. C.)	...	100

Aradia Mills (S. C.)	93	96
Arkwright Cotton Mills (S. C.)	112	96
Augusta Factory (Ga.)	80	96
Avondale Mills (Ala.)	110	96
Belton Mills (S. C.)	106	96
Bibb Mfg. Co. (Ga.)	115	96
Brandon Mills (S. C.)	128	96
Brogan Mills (S. C.)	52	96
Caharua Cotton Mills (N. C.)	120	96
Chadwick Mfg. Co. (N. C.) Pfd.	103	96
Chiquola Mfg. Co. (S. C.)	102	96
Clifton Mfg. Co. (S. C.)	115	96
Clifton Mfg. Co. (S. C.) Pfd.	103	96
Clinton Cotton Mills (S. C.)	155	96
Columbus Mfg. Co. (Ga.)	94	97
Courtenay Mfg. Co. (S. C.)	100	97
Dallas Mfg. Co. (S. C.)	92	96
Darlington Mfg. Co. (S. C.)	80	96
D. B. Converse Co. (S. C.)	112	96
Eagle & Phenix Mills (Ga.)	128	136
Easley Cotton Mills (S. C.)	130	136
Enoree Mfg. Co. (S. C.)	76	82
Enoree Mfg. Co. (S. C.) Pfd.	100	102
Enterprise Mfg. Co. (Ga.)	82	90
Exposition Cotton Mills (Ga.)	174	200
Gaffney Mfg. Co. (S. C.)	90	94
Gainesville Cotton Mills (Ga.)	45	82
Glenwood Cotton Mills (S. C.)	105	98
Gluck Mills (S. C.)	94	98
Granby Cot. Mills (S. C.) 1st Pfd.	50	100
Graniteville Mfg. Co. (S. C.)	160	165
Greenwood Cotton Mills (S. C.)	94	98
Grendel Mills (S. C.)	115	100
Hartsville Cotton Mill (S. C.)	100	103
Henrietta Mills (N. C.)	175	175
Inman Mills (S. C.)	88	110
King Mfg. Co., J. P. (Ga.)	97	103
Lancaster Cotton Mills (S. C.)	102	110
Lancaster Cot. Mills (S. C.) Pfd.	92	99
Langley Mfg. Co. (S. C.)	92	96
Laurens Mills (S. C.)	152	162
Limestone Mills (S. C.)	120	100
Lockhart Mills (S. C.)	97	101
Lockhart Mills (S. C.) Pfd.	109	105
Lory Cotton Mills (N. C.) Pfd.	99	105
Louise Mills (N. C.)	96	95
Louise Mills (N. C.) Pfd.	92	102
Mariboro Cotton Mills (S. C.)	90	90
Mayo Mills (N. C.)	150	200
Mills Mfg. Co. (S. C.)	102	100
Molloy Mfg. Co. (S. C.)	102	100
Monaghan Mills (S. C.)	109	109
Monarch Cotton Mills (S. C.)	109	109
Newberry Cotton Mills (S. C.)	127	100
Ninety-Six Cotton Mills (S. C.)	104	100
Norris Cotton Mills (S. C.)	106	100
Odell Mfg. Co. (N. C.)	90	90
Orangeburg Mfg. Co. (S. C.) Pfd.	80	100
Orr Cotton Mills (S. C.)	100	103
Pacolet Mfg. Co. (S. C.)	170	180
Pacolet Mfg. Co. (S. C.) Pfd.	101	104
Pelzer Mfg. Co. (S. C.)	167	175
Piedmont Mfg. Co. (S. C.)	167	175
Poe Mfg. Co., F. W. (S. C.)	125	130
Raleigh Cotton Mills (N. C.)	100	100
Richland Cotton Mills (S. C.) Pfd.	50	100
Roanoke Mills (N. C.)	118	100
Saxon Mills (S. C.)	120	127
Sibley Mfg. Co. (Ga.)	58	63
Southern Cotton Mills (N. C.)	149	152
Spartan Mills (S. C.)	149	152
Springdale Mills (S. C.)	101	104
Trion Mfg. Co. (Ga.)	132	140
Tucapau Mills (S. C.)	190	190
Union-Buffalo 1st Pfd.	72	95
Union-Buffalo 2d Pfd.	25	30
Victor Mfg. Co. (S. C.)	115	100
Warren Mfg. Co. (S. C.)	97	100
Warren Mfg. Co. (S. C.) Pfd.	107	107
Washington Mills (Va.)	25	25
Washington Mills (Va.) Pfd.	100	105
Whitney Mfg. Co. (S. C.)	150	150
Wiscasset Mills (N. C.)	119	119
Woodruff Cotton Mills (S. C.)	125	130

### American Bank Reporter.

The American Bank Reporter, as complete as ever, but containing more information, to keep pace with the growth of financial institutions of this country in size and numbers, has just been issued by the Steurer Publishing Co., 22 Pine street, New York. This is the seventy-second year of this standard and reliable publication, which is issued every six months, namely, in March and September. It presents an alphabetical list of all banks, classified by States, with the names of their principal officers and their correspondents. There is also a list of attorneys, a synopsis of banking and commercial laws, besides much other matter. Data concerning Canadian banks is also given, and a thumb index makes the volume very handy for reference. It is handsomely bound.

Bids will be received at St. Matthews, Orangeburg county, South Carolina, until noon May 15 for \$10,000 of 5 per cent. school bonds. Further particulars will be found in the advertising columns.

### New Corporations.

A report from Fort Worth, Texas, states that the Continental Bank & Trust Co. of that city will establish a branch at Crowley, Texas.

It is reported that the Gaddis and McRaven interests are promoting a plan to organize a \$500,000 banking institution at Jackson, Miss.

The Bank of Des Arc at Des Arc, Mo., capital \$10,000, has been chartered by N. A. Farr and William Stevenson of Des Arc and others.

The First State Bank of Kennedale, Texas, has been incorporated with \$10,000 capital by J. H. Rodgers, John M. Payne, L. A. Dowlen and J. M. Estes.

The State Exchange Bank of Jackson, Miss., will, it is stated, begin business in about 30 days with \$500,000 capital. L. J. Rice is one of the principal promoters.

The Patterson Bank of Patterson, Ga., has been organized with \$25,000 capital. Among the stockholders are Henry Myers, D. J. Walker and C. T. Purdom.

Plans are being completed for the establishment of a new bank at Sheffield, Ala., with \$50,000 capital. J. H. Lester of Gadsden is the principal promoter.

The Charitable Protective Union, which is to conduct a general realty business, has been chartered at Macon, Ga., with \$50,000 capital by T. B. Jones and others.

The Farmers and Merchants' Bank of Milltown, Ga., has been granted a charter; capital \$25,000. The incorporators are P. T. Knight, J. C. Wilkinson and others.

The People's Bank of Samson, Ala., has begun business with \$25,000 capital. The officers are J. H. McDuffie, president; B. P. McDuffie, Jr., vice-president, and J. W. Thurmond, cashier.

The Bank of Cecil has been organized at Cecil, Ga., by J. J. Parrish, Jr., and J. W. F. Woodall, representing the Citizens' Bank of Adel, Ga., of which the new institution will be a branch.

It is reported that a bank with \$25,000 capital is being organized at Woodlawn, Ala. Among those interested are W. E. Perryman, J. B. Gibson, E. Brewer and R. Dupont Thompson.

The Farmers' National Bank of Miles, Texas, capital \$25,000, has been organized by C. C. Culwell, H. E. Jackson, J. H. Allison, C. A. McBeth, J. M. Washum, B. L. York and F. G. Rogers.

The Citizens' National Bank of Pineville, W. Va., has been approved; capital \$50,000. The organizers are M. F. Matheny, W. G. Lambert, Joseph Mace, John Ball and A. R. Wittenberg.

The Porter National Bank of Porter, I. T., has been approved; capital \$25,000. The organizers are J. R. Kennon of Porter, I. T.; Chas. L. Hale, C. P. Farron, J. F. Darby and J. L. Dabbs.

The First National Bank of Texhoma, O. T., has been approved; capital \$25,000. The organizers are J. R. P. Sewell, A. N. Edmonds, Robt. A. Thompson, W. A. Smith and S. G. McAdams.

The First National Bank of Bridgeport, Texas, has made application for a charter; capital \$25,000. The organizers are H. C. Leonard, D. M. Willson, J. H. Carpenter, J. M. Slover and J. A. Kaker.

The First National Bank of Eunice, La., has been approved; capital \$30,000. The organizers are Paul Stagg, Guillaume Ardoin, Theogene Rozas, Louis Mayer, Theogene Reed and Robert Lafleur.

The Mosheim Banking Co. is reported organized at Mosheim, Tenn., with \$15,000 capital. Johnson City capitalists are said to be interested, among them being James M. Gaunt of the City National Bank.

The First National Bank of Siloam Springs, Ark., capital \$25,000, has been approved. The organizers are P. S. Powell, Nowata, I. T.; J. H. Lindsey, D. W. Peel, Rex W. Peel and I. T. Kemper.

The Virginia Investment Co. has been incorporated at Suffolk, Va., with from \$1000 to \$15,000 capital by W. G. Davis, president, of Norfolk; F. W. Lloyd, secretary, and J. H. Corbitt of Suffolk, Va.

The First National Bank of Ochiltree, Texas, has been approved; capital \$25,000. The organizers are E. A. Perry of Hamilton, Texas; Joe E. Williams, M. Logan, Geo. F. Perry and W. S. Graves.

The Dawson State Bank of Dawson, Texas, has begun business with \$25,000 capital. The officers are J. B. McDaniel,

president; L. C. Wells and R. A. Caldwell, vice-presidents, and Joe C. Keitt, cashier.

The Davenport State Bank of Davenport, O. T., capital \$12,500, has been incorporated by H. M. Johnson of Chandler, C. C. Randall, J. C. Hugo, Irving Stacey, Charles Berner, John Sweat and W. D. Baird.

Application has been made by John J. Cannon, Hugh McClasley, R. W. Wilmot, W. P. Brown and Gustav R. Westfeldt to organize the New Hibernia National Bank of New Orleans, La., with \$400,000 capital.

The First National Bank of Minco, I. T., has been authorized to begin business with \$25,000 capital. J. H. Bond is president, C. B. Campbell vice-president, T. T. Johnson cashier and E. B. Bond assistant cashier.

The Farmers' National Bank of Olustee, O. T., capital \$25,000, has been approved. The organizers are B. E. Kelly, Olustee, O. T.; Wm. T. Johnson, I. W. Satterfield, N. T. Gilbert and A. B. Dunlap.

The Business Men's Club of Seguin, Texas, is reported to be promoting a plan to establish a building and loan association. The following committee has been appointed: Jesse Legette, F. Klein and W. Baxter.

The Yoakum National Bank of Yoakum, Texas, capital \$75,000, has been approved. The organizers are Ed. B. Carruth of Yoakum, Texas; J. M. Burnett, B. P. Stephenson, John M. Green, Dan T. Price and N. T. Brian.

The Farmers and Merchants' Bank of Douglasville, Ga., capital \$25,000, has been incorporated by W. C. Abercrombie, F. M. Stewart, R. W. Johnston, L. C. Upshaw and J. Q. Entekin, all of Douglas county.

The Rossville (Tenn.) branch of the Avenue Bank & Trust Co. of Chattanooga, Tenn., has begun business. Roy Jackson, vice-president of the Avenue Bank & Trust Co., will have charge, assisted by W. H. Douglas.

The Newcomb Realty Co. of New Orleans, La., capital \$125,000, has organized by electing officers as follows: W. N. Grunewald, president; William F. Pinckard, vice-president; Robert B. Jones, secretary and treasurer.

The Bank of Whitehouse, recently organized at Whitehouse, Tenn., with \$10,000 capital, has been granted a charter. The incorporators are L. L. Freeland, T. T. Bryan, Garfield Browne, J. H. Owen, A. J. Warren and J. P. Wilson.

The Pottawatomie County Abstract Co. of Shawnee and Tecumseh, O. T., has been incorporated with \$50,000 capital by W. J. Riggs, W. H. Parker and E. C. Stanard of Shawnee, W. F. Cissell of Tecumseh and I. J. Gordon of Wanette.

The Elks Trust Co. has applied for a charter at Chattanooga, Tenn.; capital \$30,000. Its object is to secure funds to complete the Elks Home. The incorporators are Chas. Reif, Sol. Moyses, W. P. Hays, L. M. Coleman and John Stagmaier.

The Gainesville National Bank of Gainesville, Fla., has been authorized to begin business with \$100,000 capital. The organizers are R. D. Crawford, Dothan, Ala.; J. R. Faircloth, C. A. Faircloth, G. Henry Davis, C. Y. Crawford and T. W. Shands.

The Lumbermen's National Bank of Houston, Texas, has been authorized to begin business; capital \$400,000; S. F. Carter, president; Jesse H. Jones, J. P. Carter, Guy M. Bryan and W. E. Richards, vice-presidents, and A. S. Vandervoort, cashier.

The New South Mutual Life Insurance Co., with headquarters in Atlanta, Ga., has been granted a charter. The incorporators are R. E. Currie, B. S. Calhoun, W. E. Currie and B. J. Calhoun of Montgom-

ery county, and J. F. Anthony of Atlanta.

The First National Bank of Burlington, N. C., capital \$50,000, has been authorized to begin business with J. A. Davidson, president; George W. Anthony, vice-president; A. L. Davis, cashier; J. E. Lasley, assistant cashier. This is a conversion of the People's Bank.

A State bank has been organized at Mt. Calm, Texas, with the following directors: E. T. Nickels, J. R. Earles, W. A. Blount, V. V. Brinson, J. K. Cochran, B. H. Oates and J. H. Reynolds; officers, B. H. Oates, president; J. H. Reynolds, vice-president; H. M. Cochran, cashier.

The Cross Plains Bank of Cross Plains, Tenn., recently organized with \$12,000 capital, has been granted a charter. The incorporators are L. B. Walton, Moses Byrom, T. W. Simmons, J. J. Covington, J. T. Spain, J. R. Jernigan, W. W. Richards and Edward Jernigan.

The First National Bank of Gorman, W. Va., capital \$50,000, has elected the following directors: C. H. Vossler, M. A. Patrick, L. D. Gastiger, E. L. Judy, J. A. Kimble, M. Tambourini, J. H. Schaeffer, A. F. Swartz, Burt Wilson, Obed A. Hanlin, D. P. Hendrickson and B. Harvey.

The Newton Banking Co., a private institution at Griffin, Ga., is reported to have been converted into a State bank with \$30,000 capital. Will Hill Newton is president; J. J. Mangham and R. L. Williams, vice-presidents; E. O. Newton, cashier, and C. F. Thornton, assistant cashier.

The Greenville Bank & Trust Co. of Greenville, Texas, recently organized with \$50,000 capital, has filed its charter. The incorporators are Y. O. McAdams, J. H. Wheatley, A. S. Moore, A. R. King, H. L. Carpenter, P. A. Peak, R. K. McAdams, J. N. Lemmon, Ed. A. Jones and F. N. Sockwell.

The Arkansas Trust Co. of Hot Springs, Ark., has filed articles of incorporation; capital \$100,000. The directors are M. J. Henderson, president; S. H. Stitt, vice-president; David Burgauer, secretary-treasurer; F. S. Stitt, J. W. Angle, D. C. Rugg and J. P. Henderson. Business is to begin about May 15.

The Citizens' Bank of Pettigrew, Ark., has been incorporated; capital \$30,000. The officers are Bruce Holcomb, president; Eli Sisemore, vice-president; C. C. Drake, secretary and treasurer. The corporators are J. H. Phipps, Bruce Holcomb, C. C. Drake, Eli Sisemore, A. A. Grigsby, W. J. Ritchie and R. E. Cornett.

The Planters and Merchants' National Bank of South Boston, Va., has been authorized to begin business with capital of \$100,000. Henry Easley is president, W. I. Jordan vice-president, R. E. Jordan cashier and W. E. Owen and T. O. Easley assistant cashiers. This is a conversion of the Planters and Merchants' Bank of South Boston.

The First National Bank of Thomasville, N. C., has been organized with \$25,000 capital. The officers are C. F. Lambeth, president; Sheriff J. T. Finch, vice-president, and A. H. Regan, cashier; directors, J. Elwood Cox of High Point, Dr. C. H. Phillips of Fullers, C. L. Harris, F. S. Lambeth, T. J. Finch, E. W. Cates, J. A. Green, C. F. Lambeth and E. C. Strayhorn of this city.

It is reported that the Matador Bank of Matador, Texas, has been merged with the First State Bank of Matador and opened for business with \$25,000 capital. The officers are John H. P. Jones, president; John W. Chalk, vice-president; Will P. Jones, cashier; J. H. Hankins, assistant cashier; A. B. Echols, T. E. Lecke, John H. P. Jones, John W. Chalk, Will P. Jones, directors.

[For Additional Financial News, See Pages 42 and 43.]



